

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Staff Report

Proposed Amended Rule 1193 – Clean On-Road Residential and Commercial Refuse Collection Vehicles

March 2010

Deputy Executive Officer

Science and Technology Advancement
Chung S. Liu, D.Env.

Assistant Deputy Executive Officer

Mobile Source Division
Science and Technology Advancement
Henry Hogo

Manager, On-Road Section

Mobile Source Division
Science and Technology Advancement
Dean Saito

AUTHORS:

Mobile Source Division, Science and Technology Advancement

David Coel – Program Supervisor

Phil Barroca – Air Quality Specialist

Wei Li – Air Quality Specialist

REVIEWED BY:

District Counsel

Barbara Baird–District Counsel

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

GOVERNING BOARD

Chair: WILLIAM A. BURKE, Ed.D.
Speaker of the Assembly Appointee

Vice Chair: DENNIS YATES
Mayor, City of Chino
Cities Representative, San Bernardino County

MEMBERS:

MICHAEL D. ANTONOVICH
Supervisor, Fifth District,
Los Angeles County Representative

MARION ASHLEY
Supervisor, Fifth District,
Riverside County Representative

MICHAEL CACCIOTTI
Councilmember, City of South Pasadena
Cities Representative, Los Angeles County, Eastern Region

BILL CAMPBELL
Supervisor, Third District
Orange County Representative

JANE W. CARNEY
Senate Rules Committee Appointee

JOSIE GONZALES
Supervisor, Fifth District
San Bernardino County Representative

RONALD O. LOVERIDGE
Mayor, City of Riverside
Cities Representative, Riverside County

JOSEPH K. LYOU, PH.D.
Governor's Appointee

JUDITH MITCHELL
Councilmember, City of Rolling Hills Estates
Cities Representative, Los Angeles County, Western Region

JAN PERRY
Councilmember
City of Los Angeles Representative

MIGUEL PULIDO
Mayor, City of Santa Ana
Cities Representative, Orange County

EXECUTIVE OFFICER:

BARRY R. WALLERSTEIN, D.Env.

TABLE OF CONTENTS

Introduction	1
Background.....	1
Proposed Amendments to Rules 1193.....	2
Emission Benefits.....	13
CEQA Analysis	24
Cost Analysis.....	24
Fleet Cost Impacts.....	24
Incremental Cost-Effectiveness Analysis	25
Funding Programs	25
Public Comments.....	26
Summary and Draft Findings	40
Summary	40
Draft Findings Required by the California Health and Safety Code	40
 Appendix A: Proposed Amendments to Rule 1193	

Introduction

Between June 2000 and April 2001, the South Coast Air Quality Management District (SCAQMD or District) Governing Board adopted seven mobile source rules, commonly referred to as the “fleet rules.” The purpose of the fleet rules is to reduce mobile source emissions by accelerating the implementation of currently available cleaner-burning or alternative-fuel vehicle technology. Rule 1193 – Clean On-Road Residential and Commercial Refuse Collection Vehicles was adopted by the SCAQMD Governing Board on June 16, 2000. Rule 1193 as initially adopted affected public fleets and private fleets with 15 or more refuse vehicles, requiring these fleets to purchase rule compliant vehicles (alternative-fuel, dual-fuel, or pilot ignition refuse vehicles) when an affected fleet operator decides to acquire one or more refuse vehicles. Rule 1193 was phased-in between July 1, 2001 and July 1, 2002. Types of refuse vehicles affected include solid waste collection vehicles, rolloff vehicles, and transfer vehicles. Refuse vehicles weighing more than 14,000 pounds are affected by this rule.

BACKGROUND

On August 31, 2000, the Engine Manufacturers Association (EMA) filed a lawsuit challenging the mandatory vehicle purchase requirements of the fleet rules, including Rule 1193. EMA’s complaint alleged the fleet rules were preempted by the Clean Air Act, Section 209(a), 42 United States Code § 7543(a). This section of the Clean Air Act generally preempts State standards relating to the control of emissions from new motor vehicles and new motor vehicle engines. On August 23, 2001, the District Court entered summary judgment against the plaintiffs, holding that the Fleet Rules were not preempted by CAA Section 209(a) with the Ninth Circuit Court summarily affirming this finding. In 2004, the United States Supreme Court reversed the lower court decision, holding that mandatory vehicle purchase requirements could be within the scope of CAA Section 209(a). The Supreme Court concluded, however, that the Fleet Rules were not necessarily preempted in toto, and remanded the case back to the lower court for determination. On remand, the District court held that EMA’s challenge to the Fleet Rules was a facial challenge; the market participant exception to preemption applied in the context of CAA Section 209(a); the Fleet Rules as applied to state and local governments fell within the market participant exception to preemption; and because certain applications of the Fleet Rules were not preempted by Section 209(a), EMA’s facial challenge to the Fleet Rules failed. The Ninth Circuit upheld the conclusion that the rules as applied to state and local government procurement and contracting fell within the market participant exception and remanded for a determination whether any provisions of the rules were nevertheless preempted. The parties reached a settlement agreement which provided that: (1) SCAQMD Rules 1191, 1192, 1193, 1194, 1195, and 1186.1 (“Fleet Rules”) are not preempted by the Clean Air Act Section 209(a), 42 U.S.C. § 7543(a), in so far as they

direct the purchasing, procuring, leasing, and contracting decisions of state and local government entities, including the State of California, counties, cities, and special districts, and private entities under contract to, or operating under an exclusive license or a franchise with, state and local government entities, and (2) Consistent with the U.S. Supreme Court's decision in *Engine Mfrs. Ass'n v. South Coast Air Quality Mgmt. Dist.*, 541 U.S. 246, 255 (2004), the Fleet Rules are preempted by the Clean Air Act Section 209(a), 42 U.S.C. § 7543(a), in so far as they direct the purchasing, procuring, leasing, and contracting decisions of federal government entities and private entities that are not under contract to, or operating under an exclusive license or a franchise with, state or local government entities.

In addition, in the process of implementing the fleet rules, it has come to the attention of SCAQMD staff that at certain times diesel heavy-duty vehicles may have been extensively used in lieu of rule compliant vehicles, possibly due to equipment breakdown. Rule 1193 does not contain a specific equipment breakdown provision. As such, the applicable SCAQMD rule to address this situation would be Rule 430 – Breakdown Provisions. Rule 430 was written to address equipment breakdown situations in stationary source applications, and is therefore difficult to apply to the fleet rules in terms of the specific set of circumstances that constitute equipment breakdowns, breakdown notification, and timeframes needed to remedy breakdowns. Therefore, a need exists to amend Rule 1193 to provide specific language to address equipment breakdowns specific to refuse vehicle operation and repair.

The SCAQMD has been enforcing Rule 1193 based on the Court Decisions and in accordance with the settlement agreement. However, there is a need to clarify the Rule given the various mechanisms that local jurisdictions use for refuse collection services. The SCAQMD staff released proposed amendments to Rule 1193 in September 2009. Based on public comments received, staff is proposing revisions to the September 2009 proposed amendments in this Staff Report. A copy of the proposed amendments to Rule 1193 is provided in Appendix A of this report.

PROPOSED AMENDMENTS TO RULE 1193

Staff is proposing amendments to address recent court decisions on fleet rule applicability in terms of modifying the scope of the rule to apply to government fleets and government contracts, except federal fleets. Where the combined total of refuse vehicles used by the government agency and private fleet(s) to supply refuse collection services to the government agency constitutes 15 or more vehicles, the proposed rule would phase-in requirements that specify (1) government agencies and private fleets to acquire rule compliant refuse vehicles upon a decision by these entities to acquire refuse vehicles, and (2) government agencies to contract out for 100 percent rule compliant vehicles over a phase-in period and private entities to supply these vehicles when affected government agencies seek refuse collection services

from private entities. The proposed amendments affect portions of the rule pertaining to purpose, applicability, definitions, fleet requirements, and exemptions, as contained in subdivisions (a), (b), (c), (d), and (g) of Proposed Amended Rule (PAR) 1193 provided in Appendix A.

In addition, new language is also being proposed under subdivisions (c), (e), and (f) of PAR 1193 addressing equipment breakdown. Subdivision (c) contains a definition of equipment breakdown, and subdivision (e) contains requirements pertaining to equipment repair timeframe as well as a reference to subdivision (f) which allow for the submission of a Technical Infeasibility Certification Request (TICR) to address extended repair timeframes.

Finally, additional clarifying language is being proposed to address potentially long refuse vehicle delivery timeframes that would allow the temporary use of non-rule compliant refuse vehicles under certain conditions if a private contractor must order new rule compliant vehicles to supply services to a government agency upon commencement of a new agreement to provide these services. This proposed language is contained in subdivisions (d) and (f) of PAR 1193.

Following are the proposed changes to Rule 1193 and a brief explanation of the changes, revisions, or deletions.

Rule 1193 (a) Purpose

The following language is proposed to be added to the rule: “for use by or for governmental agencies in the South Coast Air Quality Management District (District).”

Explanation: This language is added to clarify that any governmental agency which either uses refuse collection vehicles or arranges to have refuse collection services provided within its jurisdiction by a private operator will be subject to the rule.

Rule 1193 (b) Applicability

The following revisions are proposed to the rule: remove the term “private entities” and add new language: “private fleet operators that provide solid waste collection services to governmental agencies.” In addition, language is added to specify that the rule shall not apply to “solid waste collection vehicles where the combined total of government operated solid waste collection vehicles and private fleet operated solid waste collection vehicles providing solid waste collection services to the government agency is fewer than 15 vehicles,” and “vehicles used by a private solid waste collection fleet operator that provide services to a governmental agency not requiring a contract or franchise agreement. Finally, an administrative change is

proposed to modify the reference pertaining to non-applicable vehicles from paragraph (e) to subdivision (g).

Explanation: Rule 1193, as currently written, applies to government agencies and private refuse collection service operators that operate any combination of solid waste collection vehicles, rolloff vehicles, or transfer vehicles that totals at least 15 vehicles. The proposed rule amendment contains various rule language changes for consistency with the court decisions. The proposed rule language modifications primarily affect private fleets and to a lesser extent governmental fleets. Rule applicability in the proposed rule can be analyzed in terms of affected fleet type, vehicle threshold requirement, and triggering events that would require the acquisition and use of rule-compliant vehicles.

With regard to affected fleet type, recent court decisions specify that Rule 1193 only apply to private fleets to the extent they provide solid waste collection services to governments. In terms of the proposed rule language, the concept of “exclusive refuse collection services” is implemented through three provisions of the proposed rule: Subdivision (b) Applicability, and paragraphs (b)(4) and (b)(7), relating to the definitions of “contract” and “franchise agreement.” Subdivision (b) of the proposed rule specifies that Rule 1193 applies to government agencies that operate solid waste collection vehicles and private fleet operators that provide solid waste collection services to governmental agencies, with three exceptions. One of these exceptions is that rule applicability shall not apply to vehicles used by a private solid waste collection fleet operator that provide services to a governmental agency not under a contract or franchise agreement. The term “contract” is defined as an agreement between a governmental agency and a private service contractor where the contractor’s compensation for providing services is specified. For the purposes of PAR 1193, “Franchise Agreement” is defined as a “contract,” regardless of any provision that specifies a rate structure, and that the governmental agency sets a limit on the number of private waste collection fleet operators that can provide waste collection services or the governmental agency limits the total number of franchise agreements issued to private waste collection fleet operators. The terms “Contract” and “Franchise Agreement” are discussed in the following section.

With regard to the vehicle threshold requirement, Subdivision (b) Applicability specifies that Rule 1193 shall not apply to solid waste collection vehicles where the combined total of government operated solid waste collection vehicles and private fleet operated solid waste collection vehicles providing solid waste collection services to the government agency

is fewer than 15 vehicles. For the purposes of Rule 1193, affected private fleet vehicles providing refuse collection services are considered an extension of the government refuse collection fleet in determining whether the vehicle count has exceeded 14 vehicles.

The triggering event imposing the use of rule compliant vehicles is the execution or renewal of a legal agreement in combination with a limit on the total number of refuse collection vehicles or operators that operate within the government agency's jurisdiction. Execution of new contracts for services, options on existing contracts to extend the timeframe of existing contracts, or automatic renewals of existing contracts that extend the timeframe of the contract are triggering events that would require the use of rule-compliant vehicles such as alternative-fuel or pilot ignition vehicles.

Rule 1193 (c) Definitions

The following revisions and additions are proposed to be added to the rule to clarify terminology incorporated into proposed new rule provisions.

Specifically, the following definitions are added:

BACKUP VEHICLE means a solid waste collection vehicle, rolloff vehicle, or transfer vehicle that is not an alternative-fuel, dual-fuel, or pilot ignition heavy-duty vehicle, and is driven fewer than 1,000 miles annually.

CONTRACT means an agreement between a private solid waste collection fleet operator and a governmental agency to perform residential or commercial solid waste collection services, in which the contractor's compensation for providing services, or a formula for determining compensation, is specified. Any option to renew the contract or automatic renewal that extends the contract performance period shall be considered a new contract and shall meet the requirements in subdivision (d).

EQUIPMENT BREAKDOWN means any malfunction to an alternative fuel solid waste collection vehicle subject to this rule, including a traffic accident, which causes the vehicle to operate in an unsafe or unusable manner.

FRANCHISE AGREEMENT is considered a contract as defined in paragraph (c)(4), regardless of any provision that specifies a rate structure, provided that the franchise agreement sets a limit on the number of private waste collection fleet operators that can provide waste collection services or the governmental agency limits the number of franchise agreements issued to private waste collection fleet operators.

GOVERNMENTAL AGENCY includes any state, regional, county, city, or governmental department and agency, and any special district such as, but not limited to water, air, sanitation, transit, and school districts.

PUBLIC SOLID WASTE COLLECITON FLEET OPERATOR is a governmental agency who owns, leases, or operates substantially in the District, solid waste collection, rolloff, or transfer vehicles.

Revise the following definition to remove the terms “Public” and “federal”:

~~PUBLIC OR PRIVATE SOLID WASTE COLLECTION FLEET OPERATOR~~ is a person who owns, leases, or operates substantially in the District, solid waste collection, rolloff, or transfer vehicles. A person is an ~~federal, state, county, or city government department or agency; special district such as a sanitation or water district;~~ individual firm; limited liability company; association; partnership; or corporation ~~or any other~~ entity that collects, transports, or transfers solid waste, yard waste, or recyclable materials.

Explanation: The above definitions are proposed to clarify the implementation of PAR 1193 relative to the provisions for public and private solid waste collection fleets, provisions for governmental agencies who retain private solid waste collection services, and operation of rule compliant vehicles. In addition, the court decisions which reviewed the application and authority of the SCAQMD Fleet Rules determined federal entities are excluded from such requirements.

Rule 1193 (d) Fleet Requirements

The following language is proposed to be modified in the rule:

- (1) ~~Beginning July 1, 2001 for public and private solid waste collection fleet operators of 50 or more solid waste collection vehicles; and beginning July 1, 2002, for public and private solid waste collection fleet operators of 15 or more solid waste collection vehicles, or a combined total of 15 or more rolloff, transfer, or solid waste collection vehicles, Beginning (date of rule amendment), all~~ additions to an existing fleet, or formation of a new fleet, of solid waste collection vehicles shall be by purchase or lease of:
~~(A)—alternative-fuel or pilot ignition heavy-duty vehicles, for public solid waste collection fleet operators and private solid waste~~

- collection fleet operators providing collection services subject to paragraph (d)(3) who have 15 or more solid waste collection vehicles or a combined total of 15 or more rolloff, transfer, or solid waste collection vehicles when adding or replacing solid waste collection vehicles to their vehicle fleet; or
- ~~(B) — Prior to July 1, 2004, dual fuel heavy duty vehicles when adding or replacing solid waste collection vehicles.~~
- (2) ~~Beginning July 1, 2001, for public and private solid waste collection fleet operators with a combined total of 15 or more transfer or rolloff vehicles,~~ Beginning (date of rule amendment), all additions to an existing fleet, or formation of a new fleet, of transfer or rolloff vehicles shall be by purchase or lease of alternative-fuel, pilot ignition, or dual-fuel heavy-duty vehicles when adding or replacing transfer or rolloff vehicles, for public solid waste collection fleet operators and private solid waste collection fleet operators providing collection services subject to paragraph (d)(3) who have a combined total of 15 or more transfer or rolloff vehicles.

Explanation: These proposed rule modifications update the original vehicle acquisition requirements to specify that they apply to public solid waste collection fleet operators, and only those private solid waste fleet operators that provide solid waste collection services to governmental agencies. This specification is contingent upon either the public or the combined public and private solid waste collection fleets satisfying the 15 or more vehicle threshold requirements, and paragraph (d)(3) of the proposed rule affecting the private fleet solid waste collection fleet operators, which specifies the circumstances where their services would be within the scope of the rule.

The following language is proposed to be added to the rule:

- (3) (A) Prior to January 1, 2012, any governmental agency that obtains new or renewed solid waste collection services from private fleet operator(s) shall contract for 100 percent use of alternative-fuel or pilot ignition solid waste collection vehicles, rolloff vehicles, or transfer vehicles:
- (i) No later than three (3) years from the start date of the collection services for private solid waste collection fleet operators with a combined total of 50 or fewer solid waste collection vehicles, rolloff vehicles, or transfer vehicles; and

(ii) No later than two (2) years from the start date of the collection services for private solid waste collection fleet operators with a combined total of greater than 50 solid waste collection vehicles, rolloff vehicles, or transfer vehicles.

(B) Beginning January 1, 2012, any governmental agency that obtains new or renewed solid waste collection services from private fleet operator(s) shall contract for the use of alternative-fuel or pilot ignition solid waste collection vehicles, rolloff vehicles, and transfer vehicles, and private fleet operators shall be required to provide 100 percent use of these vehicles no later than January 1, 2014. If non-rule compliant vehicles need to be temporarily used due to delayed delivery of rule compliant vehicles beyond the applicable compliance date, the governmental agency or private solid waste collection fleet operator shall submit a signed and dated Technical Infeasibility Certification Request (TICR) to the Executive Officer for approval at least thirty (30) days prior to the use of noncompliant vehicles, in accordance with paragraph (f)(1).

Explanation: This new rule language requires affected public fleets to contract out for 100 percent rule compliant vehicles over a phase-in period and private fleets to supply these vehicles, where the combined total of refuse vehicles used by the government agency and private fleet to supply refuse collection services to the government agency constitutes 15 or more vehicles. This dual requirement for public fleets to contract out for rule compliant vehicles and private fleets to supply these vehicles ensures that Rule 1193 can be enforced upon both governmental agencies and service providers in the event that service providers utilize non-rule compliant vehicles to provide their solid waste collection services to the government agency. The required use of rule compliant vehicles would follow a time schedule to allow private fleets of two different size classes (50 or fewer vehicles, or greater than 50 vehicles) adequate lead time to prepare for the purchase and use of new rule compliant refuse vehicles. These lead-time provisions are based on input received from affected private fleets regarding time frames necessary to acquire and put into use rule compliant vehicles triggered by new contracts or contract renewals that occur in the near term.

In addition, the new rule language includes language to address potentially long lead times for the delivery of alternative fuel or pilot ignition refuse vehicles at the start of service, which may be an issue subsequent to the lead-time provisions. The temporary availability of rule compliant vehicles at the start of service could necessitate the temporary use of non-rule compliant refuse vehicles under certain conditions, where a private fleet

operator must order new rule compliant vehicles to supply services to a government agency upon commencement of a new service agreement. The provisions of this section would require a governmental agency or private fleet operator to submit a technical infeasibility certification request (TICR) to demonstrate to the Executive Officer why the fleet operator providing new refuse collection services is unable to provide these services using rule compliant vehicles.

Rule 1193 (e) Equipment Breakdown

The following language is proposed to be added to the rule:

- (1) A public or private solid waste collection fleet operator is permitted to substitute the use of a non-rule compliant backup solid waste collection, rolloff, or transfer vehicle for a rule compliant vehicle for a period of time lasting no longer than fourteen (14) calendar days provided that the following requirements are satisfied:
 - (A) a rule-compliant solid waste collection vehicle, rolloff vehicle, or transfer vehicle is not available, and
 - (B) except for traffic accidents, the breakdown was not caused by operator error, neglect, improper operation or maintenance procedures, as determined by the Executive Officer.
- (2) If the vehicle breakdown will last for more than fourteen (14) calendar days, the public or private solid waste collection fleet operator shall submit a signed and dated TICR to the Executive Officer prior to the expiration of the fourteen (14) day period, pursuant to paragraph (f)(2).

Explanation: This language represents a new provision that provides fleet operators with direction on the use of backup non-rule compliant vehicles, where necessary and justified. The proposed language would allow the temporary use (up to 14 calendar days) of a non-rule compliant vehicle provided the fleet operator complies with all the stated provisions in this subsection. The intent of this new provision is to allow fleet operators the flexibility to use non-rule compliant backup vehicles on a short term basis for certain unavoidable situations that render rule compliant vehicles inoperable or in an unsafe operational condition, such as mechanical breakdowns and traffic accidents, provided that the fleet operator does not have a rule compliant vehicle that could be used in place of the vehicle incurring the breakdown. The language also includes a provision allowing for the use of non-rule compliant vehicles for periods longer than 14

calendar days utilizing the Technical Infeasibility Certification Request process. It should be noted that fleet operators will not be permitted to use the equipment breakdown provision when a rule compliant vehicle is being serviced as part of normal or routine maintenance procedures. Also, an eligible back-up vehicle that does not comply with alternative fuel requirements of this rule may not be operated for more than 1,000 miles a year.

Rule 1193 (f) Technical Infeasibility Certification Request

The following language is proposed to be added to the rule:

- (1) TICRs submitted pursuant to subparagraph (d)(3)(B) shall demonstrate the unavailability of rule compliant vehicle(s) for the time period beyond January 1, 2012. This demonstration shall consist of vehicle purchase order(s), expected delivery timeframe(s), and vehicle manufacturer information that verifies delayed delivery of vehicles.
- (2) TICRs submitted pursuant to paragraph (e)(2) shall demonstrate the length of time necessary to repair the vehicle breakdown, or if the vehicle is rendered completely inoperable, the order of a new rule-compliant vehicle or the time needed to place a rule-compliant vehicle into service, beyond the initial fourteen (14) calendar day breakdown period. At a minimum the demonstration shall identify the vehicle undergoing repair by type and VIN, vehicle repair location, specific repairs being performed, and justification for period of time necessary for repair.
- (3) Pursuant to requirements contained in paragraphs (d)(1) or (d)(2), a TICR may be submitted to the Executive Officer to obtain approval for the purchase and use of non-rule compliant solid waste collection vehicle(s), rolloff vehicle(s), or transfer vehicle(s) where:
 - (A) no rule compliant engine and chassis configuration is available commercially or could be used, or
 - (B) dedicated vehicles are used to routinely transport solid waste in and out of the District.
- (4) Within seven (7) calendar days of receipt of a completed TICR submitted pursuant to paragraphs (f)(1) and (f)(2), and within forty-five (45) calendar days of receipt of a completed TICR submitted pursuant to paragraph (f)(3), the Executive Officer will either approve

or disapprove the TICR in writing, indicating the reasons for disapproval. The Executive Officer shall disapprove a TICR if it does not meet the demonstration requirements of paragraphs (f)(1), (f)(2), or (f)(3). If a TICR is disapproved by the Executive Officer:

- (A) The reasons for disapproval shall be given to the applicant in writing.
 - (B) Upon receipt of a notice of a disapproved TICR, the fleet operator shall use rule-compliant vehicles pursuant to subdivision (d).
 - (C) The fleet operator may resubmit a TICR at any time after receiving a disapproval notification, but must still use rule compliant vehicles pursuant to subdivision (d) until such time as the Executive Officer approves a TICR.
- (5) A TICR is subject to plan filing and evaluation fees as described in Rule 306.

Explanation: This new rule provision specifies the process for submission and approval of TICR, addressing unavailability of rule compliant vehicles due to date of delivery, vehicle breakdown, and unavailability of alternative-fuel chassis configuration. The provision also includes information needed to evaluate the TICR, timeframe requirements for approval/disapproval by the Executive officer, and the opportunity to resubmit disapproved TICRs at the option of the fleet operator.

Rule 1193 (g) Exemptions

The following language is proposed to be removed from the rule:

- ~~(3) Upon demonstration to the Executive Officer, any solid waste collection vehicles as required pursuant to paragraph (d) for which no alternative fuel engine and chassis configuration is available commercially or could be used.~~

Explanation: This rule provision is proposed to be moved to subdivision (f), to consolidate with other rule provisions where the Executive Officer can approve TICRs. In addition, classifying this provision under subdivision (f) provides a formal evaluation procedure to allow the use of non-rule compliant vehicles due to the unavailability of rule compliant chassis configuration.

The following language is proposed to be removed from the rule:

- ~~(5) — Persons subject to this rule who are unable to comply may apply for a variance with the SCAQMD Hearing Board. (See SCAQMD Regulation V and California Health and Safety Code Sections 42350 through 42372 for information regarding variances.)~~

Explanation: The proposed removal of this language is to conform with other District rules which do not include such language. Removal of this language does not preclude the ability of any person subject to this rule from applying for a variance with the SCAQMD Hearing Board.

The following language is proposed to be added to the rule:

- (5) Vehicles contracted for solid waste collection services provided that the solicitation to obtain new solid waste collection services from private solid waste collection fleet operators was opened at least two (2) months prior to (*date of rule amendment*).

Explanation: This proposed rule provision addresses situations where a governmental agency has recently opened a solicitation for contracted waste collection services allowing for the use of diesel vehicles, and insufficient time is available to reissue this solicitation before the start of service to incorporate new requirements included in the proposed rule amendment.

Rule 1193 (h) Compliance Auditing and Enforcement

The following language is proposed to be modified in the rule:

- ~~(fh)~~ (2) Any fleet operator seeking an exemption under subdivision ~~(eg)~~ shall supply proof that their vehicle or fleet is exempted from this rule when requested by the District.
- ~~(fh)~~ (3) No later than ~~July 1, 2004~~ December 31, 2011, any fleet operator with 15 or more, but fewer than 50 vehicles subject to ~~paragraph subdivision (d)(4)~~ shall submit a letter to the Executive Officer outlining the intended source of alternative fuel to be used for compliance purposes.

Explanation: Revisions in paragraph (h)(2) is proposed relative to the reference of subdivision (g) of the proposed rule amendment. In addition, paragraph (h)(3) is revised to request fleets with less than 50 vehicles to

provide information on where the fleet intends to refuel rule compliant vehicles by no later than December 31, 2011.

The following language is proposed to be added to the rule:

- (4) Any violation by a fleet operator of a contract or franchise agreement requirement for the use of alternative-fuel, pilot ignition, or dual-fuel vehicles, or the use of vehicles that are not authorized by this rule, is a violation of this rule.

Explanation: This language improves enforceability of proposed subparagraph (d)(3) by allowing SCAQMD additional flexibility to indentify rule violations based on any contractual violation by the private fleet operator to supply refuse services using Rule 1193 compliant vehicles.

EMISSION BENEFITS

Criteria Pollutants

The emission benefit analysis of the proposed rule amendment is based on a number of assumptions that pertain to affected fleets, refuse vehicle population, fleet turnover, and impacts to fleet turnover triggered by the proposed rule amendments that tie new contracts or contract renewals with required purchases of alternative-fuel refuse collection vehicles. These assumptions were developed based on industry input received as part of the rule development process, as well as data generated by surveys disseminated to potentially affected government agencies and private refuse collection fleet operators. In addition, current regulations directly affecting emissions from refuse collection fleets include the California Air Resources Board (CARB) Solid Waste Collection Vehicle (SWCV) Regulation and future emission standards applicable for new diesel and natural gas heavy-duty engines used in refuse collection vehicles were incorporated into the analysis.

An important component of the emissions benefit analysis was information generated by recent surveys, whose purpose was to obtain up-to-date information on the inventory and types of refuse collection vehicles operating in the SCAQMD, and types of legal agreements used by government agencies to authorize refuse collection services in their areas of jurisdiction. Two surveys were used to collect such data. The first survey was conducted for the purpose of obtaining total numbers of refuse collection vehicles operating in each fleet, as well as the breakdown of vehicles by application (e.g., automated side loader, front end loader, etc.) and fuel type. This information was requested using a one page form, mailed to all municipalities in the SCAQMD as well as known private refuse collection fleets operating in the SCAQMD. Private fleet refuse collection service operators were primarily indentified based on lists of permitted

companies from various government sources. A total of 351 surveys were mailed and responses were received from 234 survey recipients.

The second survey was conducted to gather information on how government agencies authorize refuse collection services for their specific areas of jurisdiction. Contract related information requested included types of legal agreements used (e.g., exclusive franchise agreements, evergreen contracts, business permits, etc.), contract terms, and remaining time on contract. A total of 170 surveys were mailed and responses were received from 78 government agencies.

Both surveys provided critical information used to assess the base inventory of refuse collection vehicles operating in the SCAQMD, the subset of this vehicle population that would be impacted by the proposed rule amendment, and how fleet turnover might be impacted by the proposed rule amendments. Data and assumptions used in the emission benefit analysis are as follows.

1. Since the CARB Solid Waste Collection Vehicle (SWCV) Rule essentially will be fully implemented by the time Rule 1193 compliant vehicles will begin service as a result of the proposed rule amendment, the analysis does not assume that any PM emission reductions will result from the proposed requirements. It is assumed that the CARB SWCV rule substantially reduces in-use PM emissions from refuse collection fleets post-2010, to a level where further reductions would not be significant.
2. Based on the current make-up of rule compliant refuse trucks, it is assumed that fleets will purchase natural gas-powered (currently, the most widely commercially available alternative fuel) refuse trucks for rule compliance purposes. Using this assumption, the proposed rule amendment will generate NOx emission reductions based on the expected NOx emissions levels from natural gas heavy-duty engines compared to corresponding diesel engines for the post-2010 timeframe. The following emission factors (provided in Table 1) were used as the basis for quantifying emission reductions on a per vehicle basis from the accelerated deployment of rule compliant vehicles versus the continued use of diesel vehicles. In combination with these emission factors, a fuel consumption rate factor of 18.5 bhp-hr/gallon and an assumed 10,000 diesel gallon equivalent (dge) consumption per vehicle per year was used to develop NOx emission benefits in tons of NOx per year.

Table 1. NOx Emission Factors

Model Year	Diesel (g/bhp-hr)	Natural Gas (g/bhp-hr)
1998-1999	10.7	N/A
1990	6	N/A
1991-1997	5	N/A
1998-2002	4	N/A
2003-2006	2.38*	N/A
2007-2009	1.2	N/A
2010-2011	0.5	0.2
2012 +	0.2	0.2

* Incorporates 0.95 NOx/HC Pollution Fraction

3. The diesel refuse vehicle population that would be affected by the proposed rule amendments was analyzed in terms of three fleet categories (see Table 2). The first category includes diesel refuse vehicles in private fleets of 15 or more vehicles that provide refuse collection services to government agencies. The number of diesel refuse vehicles in this category based on survey data totals 2,855 vehicles. Private refuse fleets contributing these vehicles are currently affected by the existing Rule 1193 paragraphs (d)(1) and (d)(2), which require the acquisition of rule compliant vehicles when affected fleets decide to add or replace vehicles in their fleet. The impact of the proposed amendment on these fleets would be to accelerate turnover to rule compliant vehicles by requiring fleets to provide service under new or renewed contracts with rule compliant vehicles. It should be noted that the 2,855 vehicle population figure corresponds to the entire diesel vehicle fleet population of private fleets that currently use at least a portion of their vehicles to provide refuse collection services to government agencies that would be directly impacted by the rule amendment -- government agencies that would require at least 15 vehicles to provide complete refuse collection services and some or all of these services provided on an exclusive basis by private refuse collection fleet operators. Based on analysis of the survey data and industry input, municipalities under a certain population limit, which could be roughly in the range of 40,000 to 70,000 people, may need fewer than 15 refuse collection vehicles to provide all refuse collection services. In addition, industry representatives indicated that some refuse vehicles servicing a specific municipality may be used to service other municipalities, depending on fleet management practices. The District contains a significant number of municipalities with populations below the 40,000 to 70,000 range; therefore the 2,855 refuse vehicle figure may over represent the actual number of private fleet vehicles that would be affected by the proposed rule amendment. It is not known at this time what fraction of refuse vehicles in private fleets are used to service multiple municipalities, and in particular those municipalities that would require 15 refuse vehicles or greater to service to provide for all collection services. Affected private refuse vehicles that are assigned to service multiple

municipalities may result in rule compliant refuse vehicle being used in municipalities that would not otherwise be affected by the proposed rule amendment. Based on the preceding, staff believes that the calculated emission reductions represent the maximum potential reductions that could be achieved for the proposed rule amendment.

The second category of fleet vehicles affected by the proposed rule amendment consists of refuse vehicles owned by private refuse fleets that individually contain fewer than 15 vehicles, but supply refuse collection services to one or more individual government agencies where the total combined number of refuse vehicles servicing that individual government agency totals at least 15 refuse vehicles. Based on the survey data, staff estimates that affected private fleets in this category operate about 98 vehicles. Currently, these fleets are unaffected by Rule 1193 and are assumed to retire and replace existing diesel vehicles with non-rule compliant vehicles through normal fleet turnover. The effect of the proposed amendments on these fleets would be to require the accelerated turnover of refuse vehicles to rule compliant vehicles.

The third category of fleet vehicles affected by the proposed rule amendment consists of government fleets each containing fewer than 15 vehicles, where the total number of public and private refuse vehicles servicing these government jurisdictions totals at least 15 refuse vehicles. Based on the survey data, staff estimates that this category consists of about 12 vehicles. Currently, these fleets are unaffected by Rule 1193 and are presumed to retire and replace existing diesel vehicles with non-rule compliant vehicles through normal fleet turnover. The effect of the proposed amendments on these fleets would be to require the acquisition of rule compliant vehicles when these vehicles normally add or replace vehicle in their refuse fleet.

Table 2 Diesel Vehicle Population in Affected Fleets			
Category	Vehicles	Rule Impact	
		Current	Proposed
<15 (Private)	98	None	Accelerated Acquisition-Rule Compliant Vehicles
15+ (Private)	2,855	Normal Acquisition-Rule Compliant Vehicles	Accelerated Acquisition-Rule Compliant Vehicles
<15 (Public)	12	None	Normal Acquisition-Rule Compliant Vehicles
Total	2,965		

4. It is assumed that the useful life of refuse vehicles in affected private refuse fleets containing one to 50 vehicles is approximately 22 years, which results in a 4.5 percent annual turnover rate. In addition, for affected private refuse fleets containing more than 50 vehicles, the useful life is assumed to be 15 years. This useful life value results in an annual turnover rate of 6.7 percent. (For affected government refuse vehicles, the useful life is assumed to be seven years.) Staff evaluated various model year distributions that were provided by private refuse companies as well as a statewide survey conducted by CARB to obtain an overall average statewide refuse vehicle model year distribution. In addition, input was provided by industry relative to the refuse vehicle useful life for vehicles operating in the SCAQMD. Below are the model year distributions that were evaluated as part of this analysis. As expected, the model-year distributions for individual refuse companies (representing medium to large refuse fleets) shown below reflect generally newer vehicle fleets as compared to the overall statewide model-year distribution.

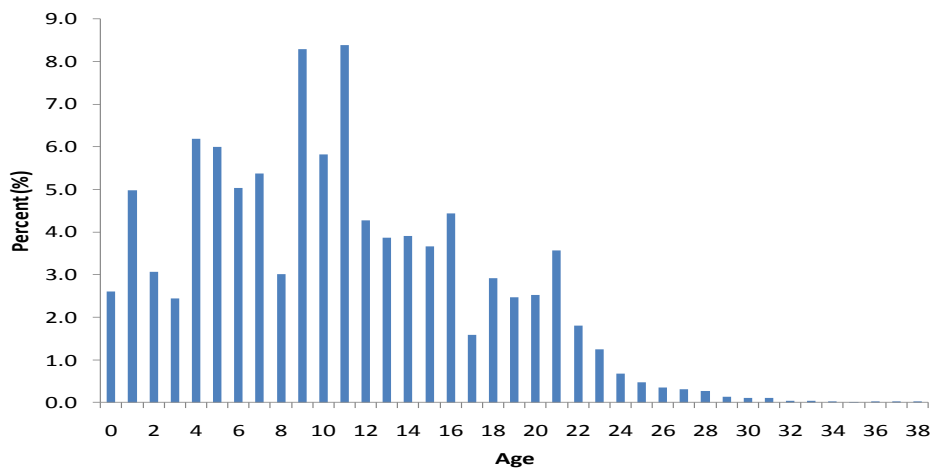


Figure 1. Statewide Refuse Collection Vehicle Age Distribution (Source: CARB, 2000)

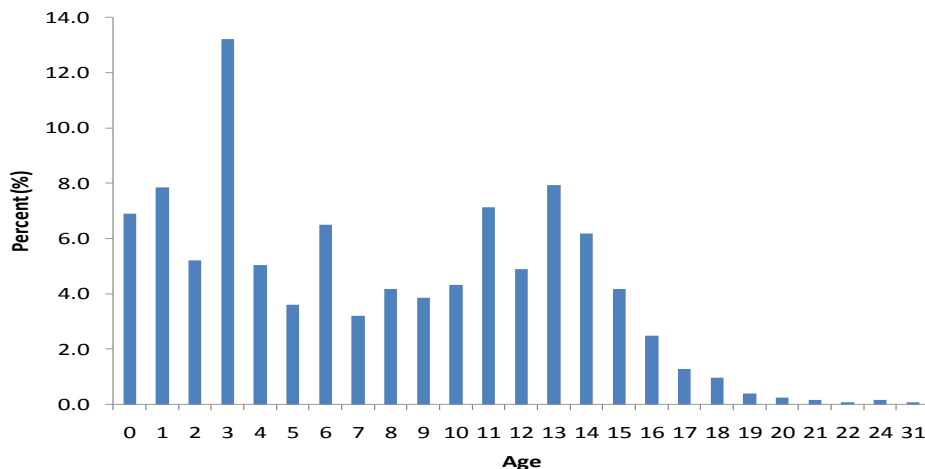
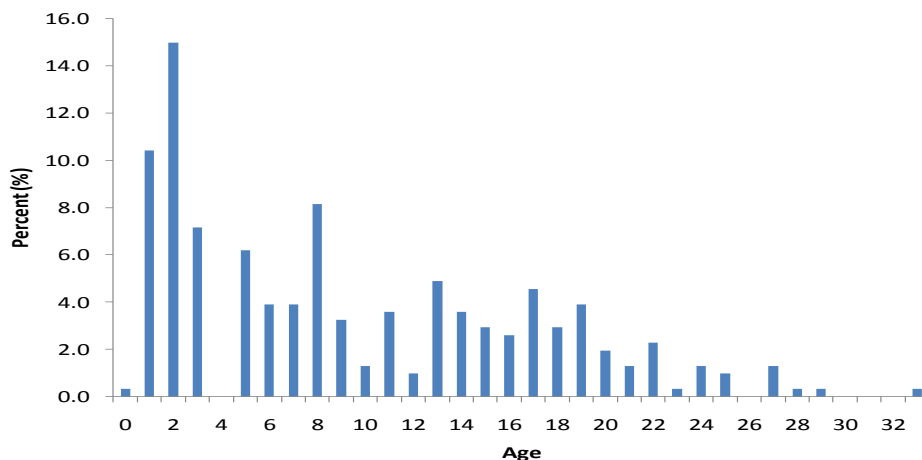
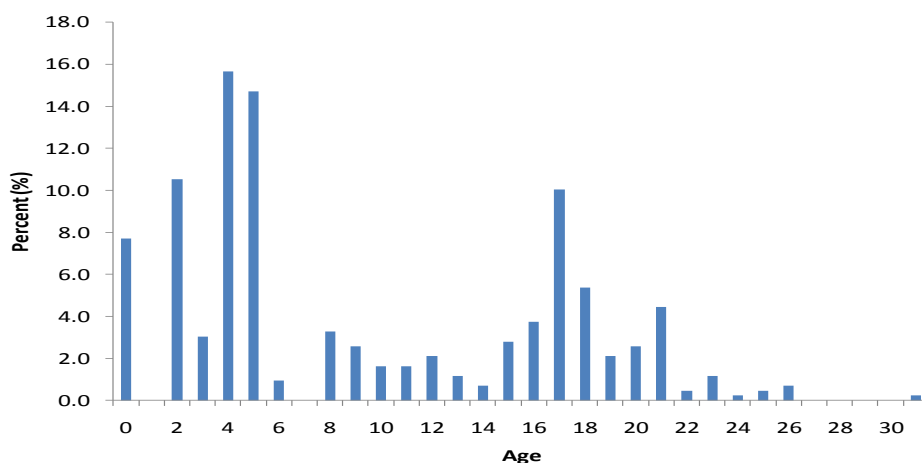


Figure 2. Example Age Distribution for One Specific Fleet.**Figure 3.** Example Age Distribution for a Second Specific Fleet.**Figure 4.** Example Age Distribution for a Third Specific Fleet.

5. Based on the government survey, which included a request for the timeframes of existing refuse collection service contracts, it is estimated the contract renewals and new contracts for refuse collection services will affect approximately 10 percent of the affected vehicle population per year. This is based on contract timeframes which generally ranged between 5 to 15 years, and the assumption that contract timeframe/renewal rate per year corresponds to numbers of vehicles that would be affected for private fleets that would be required to purchase rule compliant vehicles as a result of the revisions to subdivision (d) of the proposed rule amendment.
6. It is assumed that the proposed amendments will result in the accelerated replacement of the oldest diesel-powered refuse vehicles for natural gas vehicles.

The analysis only considers turnover of diesel vehicles to natural gas (either CNG to LNG).

7. The proposed rule language includes phase-in time periods for the requirement that 100 percent rule compliant vehicles be used to provide refuse collection services triggered by new or renewed contracts. As a result, affected fleets taking advantage of these phase-in time periods could delay the purchase of rule compliant vehicles for one and a half to two and a half years for the purpose of complying with this requirement. At the same time, the proposed amendments maintain the requirement for the purchase of rule compliant vehicles based on natural fleet turnover; that is, when fleets make a decision on their own to add or replace a vehicle in their fleet. Since this latter requirement will remain in force during the phase-in time period for the new or renewed contract provision, it is assumed that at a minimum, fleets taking advantage of this phase-in provision will continue to purchase rule compliant vehicles and that these vehicles will be reassigned to minimize the number of rule compliant vehicles that would eventually be needed to service new or renewed contracts at the end of the phase-in period.
8. The baseline model year distribution for diesel vehicles operated by affected fleets is based on the assumed useful life for the specific fleet category of interest, taking into account the existing Rule 1193 implementation, which requires the acquisition of alternative-fuel vehicles when a fleet operator decides to add or replace vehicles in their fleet. For private fleets with more than 50 vehicles each, the assumed useful life is 15 years; therefore, in the absence of Rule 1193 implementation, the model year distribution would consist of evenly distributing the total diesel vehicle population over the past 15 model years. However, because of Rule 1193, it is assumed that 2002 and newer diesel vehicles were acquired by these fleets if the vehicles were purchased during the one year timeframe between 2004 and 2005 when Rule 1193 was not affirmatively enforced, or diesel vehicles were acquired due to company acquisition. For private fleets operating more than 50 vehicles each, the available data indicate that 456 diesel vehicles are 2002 and newer model year and therefore are spread over the 2002 to 2010 timeframe; and 2,173 diesel vehicles are 2001 and older model year and are spread over the 2001 to 1996 model year timeframe. Note that the overall timeframe for distributing the existing diesel vehicles (1996 to 2010) corresponds to the 15 year useful life. For private fleets operating between 15 and 50 diesel vehicles, a 22 year useful life is assumed. Since there is no data to indicate that these fleets operate any diesel vehicles that are 2002 to 2010 model year, the 226 diesel vehicles operated by these fleets are distributed over the 1989 to 2001 model year timeframe. For affected private fleets that operate less than 15 diesel vehicles each and have not been affected by Rule 1193 thus far, and taking into account the 22 year useful life assumption for these vehicles, the 98 diesel

vehicles operated by these fleets are spread out over the 22 years corresponding to the 2010 model year to the 1989 model year. Finally, public fleets with less than 15 diesel vehicles each that have not been affected by Rule 1193 thus far, and taking into account the 7 year useful life assumption for these vehicles, the 12 diesel vehicles operated by these fleets are spread out over a 7 year time frame corresponding to the 2010 model year to the 2004 model year.

Based on the above assumptions, Figure 5 shows NOx emissions with and without PAR 1193 implementation, for diesel-powered vehicles and natural gas-powered replacement vehicles operated by affected private refuse fleet operators. As shown in Figure 5, the existing rule requirements will continue to generate emission reductions due to natural fleet turnover triggering the required acquisitions of rule compliant vehicles over time. Emission reductions are generated from the proposed rule amendment due to the accelerated fleet turnover of diesel vehicles to natural gas vehicles as a result of the requirement in the proposed rule amendment that specifies 100 percent rule compliant vehicles be utilized for new or renewed contracts. Based on the lead-time provisions in the proposed rule as contained in subparagraph (d)(3), the emission reductions reach a maximum emission reduction in 2020 of approximately 639 tons per year NOx.

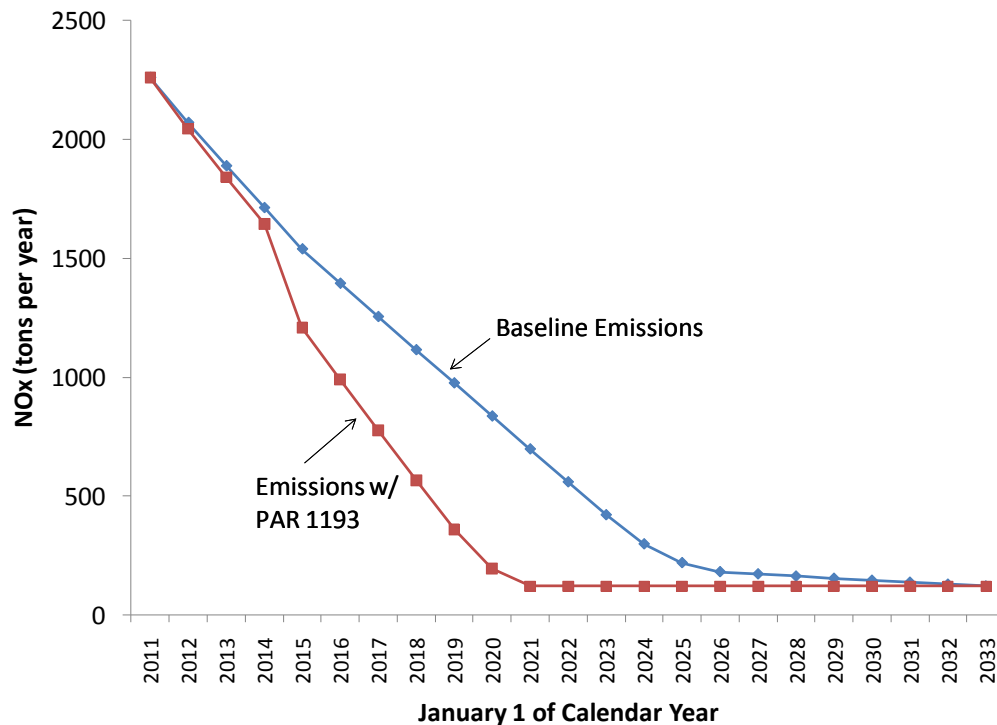


Figure 5. NOx Emission Reductions With and Without the Proposed Amendments to Rule 1193.

Figure 5 was developed using the following equations:

1.1. Baseline NOx Emissions

$$E_{Baseline} = \sum_{i=MY1}^{MYn} (N_{i,Diesel,Baseline} \times 10,000 \times 18.5 \times EF_i \times 1/907185) + (N_{Alt,Baseline} \times 10,000 \times 18.5 \times 0.2 \times 1/907185)$$

Where,

$E_{Baseline}$: Baseline NOx Emissions (tons per year)

$N_{i,Diesel,Baseline}$: Number of diesel vehicles for model year i under baseline scenario

$N_{Alt,Baseline}$: Number of alternative fuel vehicles under baseline scenario

EF_i : NOx Emission Factor of diesel vehicles for model year i (see Table 1)

0.2: NOx Emission Factor of alternative fuel vehicles (g/bhp-hr)

10,000: Annual diesel equivalent consumption rate (gallons per year)

18.5: Rate factor (bhp-hr/gal)

1/907185: Unit conversion factor (ton/gram)

MY1: Model Year 1 (Oldest)

MYn: Model Year n (Newest)

1.2. NOx Emissions under PAR 1193

$$E_{PAR} = \sum_{i=MY1}^{MYn} (N_{i,Diesel,PAR} \times 10,000 \times 18.5 \times EF_i \times 1/907185) + (N_{Alt,PAR} \times 10,000 \times 18.5 \times 0.2 \times 1/907185)$$

Where,

E_{PAR} : NOx Emissions under PAR 1193 (tons per year)

$N_{i,Diesel,PAR}$: Number of diesel vehicles for model year i under PAR 1193

$N_{Alt,PAR}$: Number of alternative fuel vehicles under PAR 1193

1.3. NOx Emission Reductions

$$ER = E_{Baseline} - E_{PAR}$$

Where,

ER: NOx Emission Reductions (tons per year)

$E_{Baseline}$: NOx Emissions under Baseline scenario

E_{PAR} : NOx Emissions under PAR 1193 scenario

Greenhouse Gases

Greenhouse gases (GHG) are known as contributors to emerging global climate change. California has been one of the leaders in the world in developing and implementing measures to reduce GHG emissions. In 2006, the Global Warming Solutions Act of 2006

(AB32) was signed to set the 2020 greenhouse gas emissions reduction goal into law. As an important early action item, the California Low Carbon Fuel Standard (LCFS) regulation was adopted by the California Air Resources Board in April 2009 and was approved by the California Office of Administrative Law on January 12, 2010. The LCFS calls for a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. According to CARB's greenhouse gas inventory, the transportation sector is the largest contributor with 38 percent of the State's total GHG emissions. As end users of the transportation fuels, solid waste collection vehicles are also important contributors of GHG emissions.

In this staff report, the GHG emissions are analyzed using the latest carbon intensities provided by CARB and energy density values contained in the LCFS.

The following equations were used to calculate GHG emissions:

1.1. Baseline GHG Emissions

$$GHG_{Baseline} = (N_{Diesel,Baseline} \times 10,000 \times 134.47 \times 94.71 \times 1/907185) + (N_{Alt,Baseline} \times 10,000 \times 134.47 \times 75.56 \times 1/907185)$$

Where,

$GHG_{Baseline}$: Baseline GHG Emissions (tons CO₂e per year)

$N_{Diesel,Baseline}$: Number of diesel vehicles under baseline scenario

$N_{Alt,Baseline}$: Number of alternative fuel vehicles under baseline scenario

10,000: Annual diesel equivalent consumption rate (gallons per year)

134.47: Energy density for diesel (MJ/gal)

94.71: Carbon intensity for diesel (gCO₂e/MJ)

75.56: Carbon intensity for alternative fuel (gCO₂e/MJ)*

1/907185: Unit conversion factor (ton/gram)

*: Assuming 50% CNG vehicles and 50% LNG vehicles, combined carbon intensity = carbon intensity for CNG×50% + carbon intensity for LNG×50% = 68.00×0.5 + 83.13×0.5 = 75.56

Source:California Low Carbon Fuel Standard

1.2. GHG Emissions under PAR 1193

$$GHG_{PAR} = (N_{Diesel,PAR} \times 10,000 \times 134.47 \times 94.71 \times 1/907185) + (N_{Alt,PAR} \times 10,000 \times 134.47 \times 75.56 \times 1/907185)$$

Where,

GHG_{PAR} : GHG Emissions under PAR 1193 (tons CO₂e per year)

$N_{Diesel,PAR}$: Number of diesel vehicles under PAR 1193 scenario

$N_{Alt,Baseline}$: Number of alternative fuel vehicles under PAR 1193 scenario

1.3. GHG Emission Reductions

$$GHGER = GHG_{Baseline} - GHG_{PAR}$$

Where,

GHGER: GHG Emission Reductions (tons CO₂e per year)

GHG_{Baseline}: GHG Emissions under Baseline scenario

GHG_{PAR}: GHG Emissions under PAR 1193 scenario

Fuel properties used for this calculation are listed in Table 3. Data for energy density and carbon intensity are taken from the LCFS.

Table 3.
Fuel Properties Used in the Calculation of GHG Emissions

Fuel	Diesel	CNG	LNG
Energy Density	134.47 (MJ/gal)	---	---
Carbon Intensity (gCO ₂ e/MJ)	94.71	68.00 ^(a)	83.13 ^(b)
Fuel Use (per vehicle)	10,000 (gal/yr)	---	---

(a): North American natural gas delivered via pipeline, compressed in California

(b): North American natural gas delivered via pipeline, liquefied in California using liquefaction with 80% efficiency

The impact of the GHG emissions from PAR 1193 is presented in Figure 2.

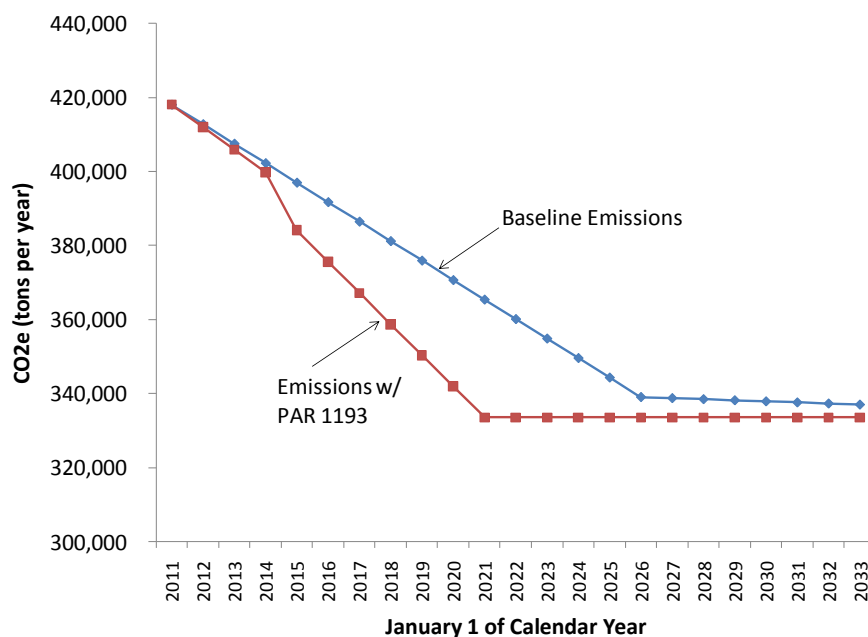


Figure. 2 GHG Emissions Impact from PAR 1193

CEQA ANALYSIS

PAR 1193 is considered a “project” as defined by the California Environmental Quality Act (CEQA), and the SCAQMD is the designated lead agency. Pursuant to CEQA and

AQMD Rule 110, the SCAQMD staff will prepare the appropriate environmental documentation to evaluate any potential adverse significant impacts associated with implementing the proposed amended rule. An environmental impact is defined as an impact to the physical conditions which exist within the area which would be affected by the proposed project.

COST ANALYSIS

Fleet Cost Impacts

Increased capital and operational cost associated with compliance with the proposed rule is expected. However, individual cost impacts will vary depending on the individual public agency or private fleet. Cost impacts may be incurred through increased purchase, maintenance, building upgrade, and refueling infrastructure costs. These impacts may be partially offset by lower fuel costs.

The capital cost of a spark ignition natural gas vehicle is more expensive than a comparable diesel model by a differential of approximately \$40,000 per truck. This is primarily a result of the current low-volume production of natural gas vehicles. Based on the surveys conducted by SCAQMD staff, it is estimated that there are currently about 5,200 solid waste collection vehicles operating in the SCAQMD. Of the 5,200 vehicles, about 1,700 run on natural gas. A majority of the natural gas vehicles have received public funding assistance through various incentives programs including the Carl Moyer Program and the Mobile Source Emissions Reduction Review Committee (MSRC). Relative to the proposed amendments, the primary concern expressed by private solid waste collection operators is the capital costs associated with the purchase of a large number of rule compliant vehicles in order to meet the refuse collection services of a specific contract.

The maintenance costs of current natural gas engines used in waste hauling operations are generally higher, but manageable, according to waste hauling industry representatives. It is expected that these maintenance costs will decrease as natural gas engine technology matures, according to natural gas heavy-duty engine industry input. As is common with new technologies, the maintenance costs for the first generation of natural gas vehicles are generally higher than for diesels. SCAQMD staff has received information relative to maintenance costs from various fleets. The costs vary from savings to additional costs depending on the fleet's initial experience with the natural gas engine. With increasing experience and training, maintenance issues have been resolved. At the same time, fleets have changed their preventative maintenance schedules to take advantage of the benefits of natural gas – especially the greatly increased oil life and reduced engine wear. Staff believes that fleets operating natural gas powered refuse trucks as well will experience these positive results.

Using the cost impacts ascribed to PAR1193 and the emission benefits as detailed above based on best-available information, the cost-effectiveness is about \$8,100 per ton of emission reduction. A socioeconomic analysis of the proposed amendments will be available 30 days before the SCAQMD Governing Board Public Hearing.

Incremental Cost-Effectiveness Analysis

Health and Safety Code Section 40920.6 requires an assessment of incremental cost effectiveness for proposed regulations relative to ozone, CO, SO_x, NO_x, and their precursors. Incremental cost effectiveness is defined as the difference in control costs divided by the difference in emission reductions between two potential control options that can achieve the same emission reduction goal of a regulation. Compared to PAR 1193, the incremental cost effectiveness of eliminating the phase-in provisions of the current proposal is \$-1,200 per ton of combined pollutants assuming no funding. This figure is a result of accelerating the cost savings associated with natural gas fuel use with the elimination of the phase-in provisions, which has greater overall economic impact as compared to the cost impacts associated with accelerating the construction of natural gas refueling stations.

Funding Programs

Various federal, state and local funding programs are available to assist public waste hauling agencies (and, in some programs, their private partners) in the acquisition and operation alternative-fuel heavy-duty refuse trucks. These are generally described below. It should be noted that public incentive funds are not typically allowed for compliance purposes for prohibitory rules included in a region's State Implementation Plan (SIP). However, since the District's fleet rules are primarily to reduce toxic air contaminants, the District's fleet rules are not included in the regional SIP and thereby incentive funding are allowed to be used to comply with District fleet rules.

AB118 California Energy Commission. The California Energy Commission's (CEC) Alternative And Renewable fuel and Vehicle Technology Program was created by Assembly Bill (AB) 118. This statute, in combination with AB 109, authorized the CEC to facilitate the development and deployment of alternative and renewable fuels and advanced transportation technologies in an effort to attain California's climate change policy goals. To support this effort, the CEC's annual program budget of approximately \$100 million will be used to provide grants, loans, loan guarantees, revolving loans and other appropriate measures for a variety of projects to attain these program goals, including projects that develop and improve alternative and renewable low-carbon fuels, expanding fuel infrastructure, fuel stations, and equipment, and improve light-, medium-, and heavy duty vehicle technologies. Eligible entities for program funding and assistance include , for example, public agencies, private businesses, and fleet owners.

The Carl Moyer Program was established by CARB to provide incentives to encourage and expedite implementation of the cleanest commercially available vehicles, and specifically to reduce emissions from heavy-duty engines. The incentives are grants for offsetting the higher costs of primarily alternative-fuel heavy-duty vehicles, and for

supporting the fueling infrastructure. Beginning in 2010, the Carl Moyer Program can fund alternative fuel engine conversion on existing diesel powered vehicles.

Mobile Source Air Pollution Reduction Review Committee's (MSRC) Discretionary Funds. Thirty percent of the funds collected each year from a \$4 surcharge on vehicle registration created by AB 2766 (Sher) goes to the Mobile Source Air Pollution Reduction Review Committee (MSRC) to be used to implement programs to reduce mobile source emissions. Managers of the program have apportioned the available funding into several technology-specific categories, including alternative-fuel heavy-duty refuse trucks. To date, dedicated natural gas refuse trucks and natural gas refueling infrastructure have been approved for MSRC Program funding by the Governing Board. For the current year work program, the MSRC will be providing funding to assist in the purchase of alternative fuel refuse collection vehicles.

Local Government Subvention Funds. Forty percent of the AB 2766 funds collected go to local governments based on a pro-rated share of population and must be used to reduce mobile source emissions. Cities can use their funds to purchase alternative-fuel vehicles or engines. While these funds are used primarily by municipalities for their own projects, these monies can be allocated by the city for public-private partnerships to pursue AFV and EV projects. Funds not expended carry over from year to year. In addition, the MSRC has a "AB 2766 Local Government Match Program" that provides a dollar for dollar match with local government's AB 2766 funding.

PUBLIC COMMENTS

Comments and Responses

A public workshop was held on September 30, 2009. Representatives from government agencies, private refuse collection service providers, and a refuse collection equipment/manufacturer attended the workshop and provided comments to District staff in response to the proposed amendments to Rule 1193. Additionally, written comments were submitted subsequent to the workshop from representatives of government agencies, private refuse collection service providers, and an environmental organization. The comments are summarized below:

Comment 1. Proposed language for newly added Paragraph 1193(d)(3) is unclear. There are no definitions for "new or renewed" solid waste collection services. It would be clearer to specify that the provision applies to new contracts and renewal of expired contracts.

Response 1. Staff believes the addition of the terms "Contract" and "Franchise Agreement" to Subdivision (c) – Definitions will help clarify the purchasing requirements of the rule as they relate to new or renewed solid

waste collection services and the requirement that government agencies contract out for 100 percent alternative-fuel or pilot ignition solid waste collection vehicles. With regard to private fleets that operate only by permit or license where the government agency does not restrict the number of these fleets that can operate in their jurisdiction, court decisions have excluded these operators from rule applicability since these services would not be provided on an exclusive basis to a government agency.

Comment 2. Proposed language for newly added Paragraph 1193(d)(3) fails to include an entire class of private fleet operators that operate only by permit or license, but not by contract or franchise agreement. There are hundreds of these small private fleet operators who work in open market sectors through a solid waste collector's permit, business license, or other periodically renewing authorization. The rule should apply to these small private fleet operators.

Response 2. Private solid waste collection operators who provide refuse collection services to local municipalities that do not restrict the number of private operators to collect refuse in their jurisdictions are not considered either a "contract" or a "franchise agreement" for the purposes of PAR 1193. This is based on the court decisions on the SCAQMD's Fleet Rules as they relate to government agencies procuring private services to complete the essential needs of the government agency.

Comment 3. Proposed language for newly added Paragraph 1193(d)(3) is inconsistent with Section (e) which contemplates the use of diesel-powered vehicles for backup in case of equipment breakdown. It is recommended that the rule require 100 percent use of alternative-fuel solid waste collection vehicles.

Response 3. The proposed language in subdivision (d) has been modified to include a phase-in of alternative fuel vehicles for private fleets operating under contract with a governmental agency. This phase-in will include alternative fuel vehicles for use as backup. Until such time that the phase-in of alternative fuel vehicles is complete in both the public and private fleets, staff is proposing to include the Equipment Breakdown provision to provide fleets the ability to fulfill essential public services without interruption. Staff believes that through vehicle attrition and subsequent replacement, the use of non-rule compliant vehicles for backup will diminish along with the use of the Equipment Breakdown provision. Staff has also added the term Backup Vehicle to Paragraph (c)(3). The definition of backup vehicles limits the use of this vehicle to 1,000 miles per year.

Comment 4. Proposed language for the new rule amendment would result in a significantly disproportionate impact between public and private operators

(working under government contract) of solid waste collection vehicles. As extensions of public fleets, private fleet operators would be required to accelerate the transition to alternative fuel vehicles, while there is no trigger event (i.e., new contract or renewal) that would require public operators to accelerate the transition, other than what is already required under the existing rule. It is recommended that the rule require that public fleet operators achieve 100 percent use of alternative fuel vehicles by a specific date such as two years from the date of adoption.

- Response 4. The commenter is correct that there are differing vehicle acquisition requirements that would apply to public solid waste collection fleets and private solid waste collection fleets that provide services to government agencies. This situation is a result of the District's overall fleet rule authority in terms of what is considered additions or replacements to a vehicle fleet, thereby triggering alternative-fuel purchase requirements. With regard to Rule 1193, the District staff considers vehicles providing solid waste collection services triggered by new or renewed contracts as new additions to the government vehicle fleets, thus triggering the 100 percent use of alternative-fuel or pilot ignition vehicle purchase requirement. Correspondingly, government-owned solid waste collection vehicles that are acquired as additions or replacements would also trigger the 100 percent use of alternative-fuel or pilot ignition vehicle purchase requirement. With regard to the two year timeframe for imposing 100 percent use of alternative fuel vehicles on government fleets, the District cannot impose this accelerated timeframe on a government fleet since fleet rule requirements can only be triggered by additions or replacements to a vehicle fleet.
- Comment 5. The section that addresses requests for technical infeasibility certification is very burdensome and unworkable. Problems with equipment delivery may not be known within the 45 day period needed to process a Technical Infeasibility Certification request. Furthermore, this section also does not reflect time required to install new infrastructure.
- Response 5. The 45 day time period pertains to the maximum amount of time the District deems necessary to process a TICR application, including those applications related to problems with delayed vehicle delivery. In addition, staff believes that this turnaround time limitation on TICR applications will provide fleets with the needed responsiveness to ensure continuity in providing essential waste collection services. The TICR application requires a minimum amount of information necessary to support approval of the TICR application caused by delayed delivery including items that should be well established before TICR submittal such as vehicle purchase

orders and expected vehicle delivery timeframes as indicated by the vehicle manufacturer. With regard to the extended timeframe for the delivery of rule-compliant vehicles after the triggering event, new phase-in time periods have been included in the proposed rule, specifically in paragraph (d)(3), that provide two or three year timeframes for the use of these vehicles and installation of necessary refueling infrastructure after the triggering event.

Comment 6. Subdivision (e) of the proposed Rule 1193 amendment, which addresses equipment breakdown, is problematic. The section imposes a burdensome and restrictive set of requirements that would increase the workloads of fleets and AQMD staff, with no air quality improvements. Furthermore, it would be very difficult to comply with the language due to short allowable time frames specified in the section (seven calendar days) and due to restrictions on what will be considered permissible breakdowns. For example, any major unforeseen maintenance/repair event or accident-related vehicle damage repair could take significantly longer than seven days to correct. For fleets that do not have significant spares of alternative fuel vehicles, this section would cause considerable difficulty. Further discussion to identify a viable alternative or to remove the subsection in its entirety would be appreciated.

Response 6. Staff has modified the September 2009 proposed Equipment Breakdown provision extending the period of use of a diesel-powered vehicle from seven (7) calendar days to fourteen (14) calendar days, and eliminated the reporting requirements associated with the proposed Equipment Breakdown provision within this time period. Equipment breakdowns for periods extending beyond 14 days will prompt the requirement to submit a Technical Infeasibility Certification Request (TICR), with a minimum of documentation necessary to justify its approval in terms of identifying the vehicle undergoing repair by type and VIN, vehicle repair location, specific repairs being performed, and justification for the period of time necessary for repair.

Comment 7. Concerning Subdivision (b) of proposed Rule 1193, “Applicability”, the preliminary staff report indicates the intent by AQMD staff to remove the term “private entities” and add new language for private fleets that provide services to governmental agencies. However, Paragraphs (d)(1) and (d)(2) have not been modified accordingly and the applicability to “public and private solid waste collection fleet operators” remains.

Response 7. Staff has incorporated these changes into the proposed rule language for consistency between Subdivision (b) Applicability and Paragraphs (d)(1)

and (d)(2) in terms of incorporating language that refers to private fleet operators providing solid waste collection services.

Comment 8. The financial burden of converting entire fleets of refuse vehicles could be daunting. The AQMD has provided financial support in the past and it is critical that AQMD continue to provide the support.

Response 8. The District will continue to directly support and help facilitate conversion of fleets to alternative fuel. For example, the Mobile Source Air Pollution Reduction Review Committee (MSRC) has recently made available funds for alternative-fuel infrastructure and alternative-fuel engines for heavy-duty vehicles. Finally, the District will encourage CARB to allow additional Carl Moyer funding be made available to assist fleets in the acquisition of low-emission alternative-fuel solid waste collection vehicles.

Comment 9. Government agencies can take up to nine months to establish a new contract. For contracts that are in the process of being established without considering the purchase requirements of the proposed rule amendment, which could extend the timeframe for the establishment of these contracts, there is concern that the rule does not effectively address the situation in which an existing contractor is unable or unwilling to extend the existing contract with alternatively fueled vehicles at the current pricing.

Response 9. Staff has modified the proposed rule language to preclude purchase requirements tied to new contracts where the development of the contract, as indicated by the solicitation date for these services, was at least two months prior to the adoption date of the proposed rule amendments. This new language should address situations where the contract development process based on the current rule language was already in development and would be difficult to modify based on revised alternative-fuel vehicle purchase requirements contained in the proposed rule amendment.

Comment 10. Agencies operating their own refuse collection fleet with fewer than 15 refuse trucks, roll-offs, and/or transfer trucks are not currently within the scope of Rule 1193, but could be affected by the proposed rule amendments. The proposed revised rule uses the combination of government and private fleet vehicles to determine whether the 15 or more vehicle threshold requirement for rule applicability has been met.

Response 10. Staff believes that the proposed rule provides a level playing field relative to providing the same treatment to government agencies that have the same number of solid waste collection vehicles providing services in their jurisdiction. It should not matter whether these vehicles are partly government owned or entirely provided by private refuse collection fleet

operators if all of these vehicles are used to provide services to the government agency on an exclusive basis, in terms of determining whether the 15 or more vehicle threshold requirement has been exceeded for rule applicability.

Comment 11. The proposed rule applies to all franchise and all commercial services, such as those providing services to an agency's yards, and all other sites. This includes waste, recycling, debris boxes, etc. It appears that all contractors must use only alternative fuel refuse collection trucks to provide these services, including any spare refuse collection trucks.

Response 11. The commenter's is correct to the extent that any vehicle which meets the definition of a solid waste collection vehicle and is used in contract service with a governmental agency is considered part of the governmental agency's solid waste collection vehicle fleet and if that fleet totals 15 or more vehicles, then all new or renewed contract services are considered additions or replacements to the government agency's fleet and thereby required to be alternative fuel. Back-up diesels vehicles may be used in the event of a breakdown for up to 14 days or longer with approval of a Technical Infeasible Certification Report.

Comment 12. In the near-term, the proposed revisions may pose significant problems based on timing. The proposed rules would become effective after the AQMD Board has adopted the changes and when the contract is bid and/or renewed. If an agency is in the second year of a five year agreement, the change would become effective beginning the third year of the agreement, even if it is only a month or two after the AQMD Board has adopted the proposed revised rule.

Response 12. The proposed rule would not affect a contract for refuse collection services if that contract has already been executed prior to adoption of the rule amendment. Therefore, the proposed rule amendment would have no impact on the second year of a five year agreement at the time the rule amendment becomes effective.

Comment 13. Existing contracts, including those with existing extension clauses, should not be considered new contracts and therefore should not be impacted by Rule 1193.

Response 13. The Commenter is referred to Response 12. It should be noted that execution of a contract extension would be considered a contract renewal and would trigger the proposed purchasing requirement for 100 percent alternative-fuel or pilot ignition solid waste collection vehicles.

Comment 14. For smaller haulers, the expenditures for alternative fuel refuse collection vehicles could easily force them out of business. Larger companies with municipal contracts are able to finance their equipment utilizing these contracts as collateral. Smaller haulers who service commercial accounts have no guaranteed contracts and either cannot obtain financing or pay much higher interest rates.

Response 14. Staff believes that the phase-in period proposed in the modified amendment language will provide private fleet operators and governmental agencies the opportunity to plan and prepare for transition to alternative fuel vehicles. In addition, based on industry input, it appears that most small refuse haulers (below 15 vehicles) operate in governmental jurisdictions that do not authorize private refuse collection services on an exclusive basis, and therefore, these smaller haulers will be unaffected by the proposed rule language. Finally, the District will continue to provide financial assistance when it can to facilitate the transition to alternative-fuel vehicles.

Comment 15. It has been said that requiring all haulers in a given area to operate alternative fuel vehicles creates an “even playing field”. However, this is not true and in fact the opposite is true. Small haulers will be forced to go out of business while larger haulers have already integrated alternative fuel vehicles into their fleets under Rule 1193. Competition will be eliminated, and without price and service competition, the customer will bear the ultimate cost. It is estimated that at a minimum, 50 to 60 solid waste collection firms working in the Los Angeles City/County areas would go out of business next year if commercial collection is covered under the rule. State emissions regulations continue to strengthen and the countdown is proceeding to continue diesel engine reductions in California. Great expense has already been made to follow CARB regulations and retrofit diesel fleets.

Response 15. Please see Response 14. In addition it should be noted that the City of Los Angeles currently maintains a no contract policy for commercial waste haulers and therefore, commercial haulers operating in the City of Los Angeles are not subject to Rule 1193. The City of Los Angeles represents a significant portion of the commercial refuse business market. The current CARB regulation for solid waste collection vehicles requires reductions in particulate matter emissions and many diesel vehicle operators have elected to retrofit their vehicle with particulate filters to comply with CARB’s rule. It should also be noted that the Proposed Rule 1193 contains a phase-in provision explicitly for smaller private refuse collection fleets that are affected by the proposed rule amendments, which allows these smaller

private fleets a three year phase-in to prepare for the acquisition of alternative fuel vehicles.

Comment 16. It is critical that any mandate to eliminate current legal refuse collection vehicles be structured to take effect on a gradual basis to allow small haulers an opportunity to comply while enabling them to stay in business.

Response 16. Please see Response 14.

Comment 17. We are supportive of the proposed revised amendments and clarifications that will improve enforcement of this important rule. We encourage AQMD to publicly share its enforcement plan for this measure and to fund enforcement activities accordingly. We recommend that the rule require further documentation from applicants as it relates to Technical Infeasibility Certification Requests. Specifically, rule language should be more explicit to require evidence of the vehicle order and anticipated delivery time.

Response 17. Staff believes that the proposed amendment language for TICR is sufficient to provide enforcement action while at the same time not create an undue burden for fleet operators and vehicle manufacturers if demand exceeds supply or other unforeseen events which inadvertently delay vehicle delivery. The TICR process is not intended or fashioned to provide time extensions on the part of the purchaser and will require statements from the vehicle manufacturers verifying the delay of delivery.

Comment 18. The proposed rule language is not clear regarding applicability where transfer trucks under contract by a government agency are used to transport materials from the transfer stations or material recovery facilities.

Response 18. The transfer trucks would be affected by the proposed amendment if the contract constitutes an exclusive agreement to provide refuse collection services and the agreement is between the government agency and the private refuse services company.

Comment 19. The proposed requirement that specifies the use of alternative-fuel solid waste collection vehicles for the entire term of the contract as well as the TICR provision which allows the District 45 days for review of the TICR application (for delayed delivery of alternative-fuel vehicles) are challenging for the following reasons: (1) upcoming contracts in the process of development will be impacted, (2) the 45 day review time for TICRs is too long and may result in potential lack of refuse collection services which is a health risk, and (3) deploying alternative-fuel refuse vehicles is too difficult to be able to specify a time when they can be

deployed once contracts between private waste haulers and government agencies are executed.

Response 19. Please see responses to Comments 5 and 9. With regard to the deployment timeframe associated with alternative-fuel refuse trucks, staff understands that incorporating the use of alternative fuel refuse trucks is challenging. Nevertheless, organizations such as the City of Los Angeles have many years of experience with alternative-fuel solid waste collection vehicles and have met these challenges.

Comment 20. The City of Los Angeles is under contract with private fleets for transfer truck applications that require round-trip ranges up to 220 miles to destinations outside the District. A temporary exemption should be granted for these fleet operators and a phase-in period be established for these vehicle owners to set up alternative fueling infrastructure.

Response 20. With regard to vehicle range, the TICR process allows for the use of diesel-powered vehicles if an alternative-fuel vehicle cannot meet performance requirements. In addition, transfer trucks that are dedicated to move solid waste in and out of the SCAQMD may be exempt from PAR 1193 upon demonstration through the TICR process. With regard to a phase-in period for refueling infrastructure, the proposed rule amendment contains two phase in provisions providing multi-year periods for the deployment of alternative-fuel vehicles as well as the set-up of refueling infrastructure. The provisions are contained in Paragraph (d)(3) of the proposed rule.

Comment 21. The incremental emission reductions and costs associated with the proposed amendment beyond current CARB requirements should be analyzed. Also, the socioeconomic report should be made available 30 days before the Board Hearing.

Response 21. Staff agrees with the commenter and has calculated the incremental emission reductions and is currently working on completing the socioeconomic analysis.

Comment 22. Emission testing of alternative-fuel engines mandated by Rule 1193 should be conducted.

Response 22. Staff agrees with the commenter, consistent with the general principle that all in-use vehicles of all types should be subject to in-use testing and enforcement of emission standard regulations.

Comment 23. The District should work with CARB and other agencies to establish protocols to monetize carbon credits that could be generated from the use of alternative-fuel vehicles.

Response 23. District staff has been evaluating carbon credit trading and has worked on protocols in an effort to establish trading markets for carbon credits.

Comment 24. Great expense has already been made to follow CARB regulations and retrofit diesel fleets. A provision should be made in the proposed rule amendment to spread out this cost.

Response 24. The proposed rule amendments contain phase-in provisions that will help fleets amortize the cost of complying with CARB's solid waste collection vehicle regulation. In addition, it should be noted that fleet acquisition requirements are spread out over time as triggered by new or renewed contracts for solid waste collection services.

Comment 25. Will there be an exemption for the lack of refueling infrastructure within 5 miles of the vehicle domicile location?

Response 25. The proposed rule amendment does not contain an exemption for lack of refueling infrastructure. Staff believes that since Rule 1193 has been in place for nearly ten years without this exemption and the current rule amendment contains phase-in provisions, this type of exemption is unnecessary at this time. However, staff will continue to monitor this situation as Rule 1193 continues to be implemented.

Comment 26. In terms of determining whether a government fleet has 15 or more vehicles, will this determination be made on an individual department basis or an entire government agency basis?

Response 26. The 15 or more vehicle threshold will be determined by counting all applicable vehicles for all departments in a government agency.

Comment 27. Can diesel vehicles be brought in to the District in the event of a natural catastrophe?

Response 27. Under Rule 118 – Emergencies, the Executive Officer has the authority to allow the use of non-compliant diesel-powered vehicles to be used in the District in the event of a natural catastrophe, if a State of Emergency has been declared. Also, a variance may be available from the Hearing Board.

Comment 28. How does the proposed rule treat transfer vehicles? Transfer vehicles should be addressed in a rule that is separate from Rule 1193.

Response 28. Transfer vehicles are treated in the same manner as solid waste collection vehicles and roll-off trucks. Based on industry input, it appears that some or possibly most transfer trucks are not under contract with a government agency, so these trucks would not be affected by Rule 1193. At this time staff does not believe that a separate rule for transfer vehicles is necessary, given that these vehicles have been a part of Rule 1193 since its original rule adoption in June, 2000.

Comment 29. Does the breakdown provision apply to both government agency fleets and private fleet operators?

Response 29. The breakdown provision applies to public and private fleet operators. If a breakdown occurs, then the breakdown provisions of Rule 1193 would have to be followed in order to permit the use of a diesel-powered vehicle. It should be noted that the use of an existing diesel-powered vehicle that is already in the government fleet as a substitute for the broken-down alternative-fuel vehicle would not trigger the breakdown provision.

Comment 30. There is no need to require alternative-fuel vehicles since the cancer risk from diesel vehicles has experienced extreme reductions.

Response 30. Cancer risk from breathing ambient air results primarily from PM emissions from diesel combustion sources, and staff acknowledges that PM emission levels for 2007 and subsequent model diesel-powered engines and natural gas powered-engines are essentially the same. However, residual PM emissions from diesel engines are still a concern, and efforts to further reduce these emissions are still important relative to reducing cancer risk.

Comment 31. How will the proposed rule amendment affect contracts where renewals do not require any action upon either the government agency or private fleet operator?

Response 31. Any contract or franchise agreement containing automatic extension of services to private operators would require the private operator to comply with the provisions of PAR 1193 for each extension. Staff will continue to outreach to local jurisdictions where this provision applies in order to provide sufficient lead time for the private operator to comply with PAR 1193.

Comment 32. The provision of the proposed rule that requires refuse collection services be provided with 100% alternative-fuel-powered vehicle upon the execution of a contract option clause to extend the performance period should be eliminated. The time periods associated with these extension periods are short, usually one to three years, and do not allow enough time

for banks to justify financing of new alternative-fuel refuse vehicles to comply with this requirement. In addition, this provision would be too financially burdensome for affected refuse haulers.

Response 32 The current rule proposal contains phase-in provisions that could allow affected refuse fleet operators up to a three year delay for the implementation of 100% use of alternative-fuel refuse vehicles. This phase-in time period should allow affected fleet operators sufficient flexibility to either complete option contract obligations or make financial arrangements to allow 100% alternative-fuel refuse services.

Comment 33 The proposed rule language pertaining to the phase-in 100% alternative fuel refuse services should be modified. Specifically, the proposed date of January 1, 2014 to provide these services as contained in subparagraph (d)(3)(B) should be changed to January 1, 2015 to allow a full three-year phase-in.

Response 33 The current proposed rule language contains a two-part phase-in provision. The first part of the phase-in allows fleets subject to new or renewed contracts that occur before January 1, 2012 to be provided with a two- or three-year phase-in of alternative-fuel vehicle service requirements depending on fleet size -- large fleets containing more than 50 vehicles are allow a two-year phase-in and small fleets are allowed a three year phase-in. Staff believes that this three-year phase-in provision for small fleets is sufficient to address their concerns regarding the implementation of 100% alternative-fuel refuse services. For additional flexibility, the second part of the phase-in provision was included into the proposed rule language to allow up to a two year phase-in for new or renewed contracts occurring on or after January 1, 2012.

Comment 34 As written, the proposed rule language would require fleet operators subject to evergreen contracts to provide 100% alternative fuel refuse services upon annual renewal of these contracts. A phase-in schedule should be established for these contracts that is tied to contract term. Typically these terms range from five to ten years. In addition, an ending date of January 1, 2020 should be included that would require refuse collection services be provided with 100% alternative fuel vehicles on or after that date, notwithstanding any contract term.

Response 34 Staff believes that the phase-in provisions currently incorporated into the proposed rule provide affected fleets with sufficient lead-time to make appropriate arrangements to provide refuse collection services using 100% alternative fuel vehicles.

Comment 35 An exemption for small businesses should be incorporated into the proposed rule language so that small private refuse fleet operators with fewer than 15 vehicles are not affected by Rule 1193.

Response 35 Staff believes that based on survey data, most fleets with less than 15 vehicles will not be affected by the proposed amendments. These fleets generally service cities under a non-exclusive agreement to provide refuse collection services residential and/or commercial customers.

Comment 36 Roll-off and transfer vehicles should be excluded from Rule 1193, since these vehicles are ordinarily deployed for debris and rubble removal during natural disasters and other emergencies. In addition, during a natural disaster, natural gas supply could be cut off. Excluding these vehicles would also make them eligible for Carl Moyer funding.

Response 36 Staff believes that District Rule 118 and variance provisions are sufficient to address emergency response that may affect refuse collection fleets during natural disasters. This rule allows the Executive Officer the ability to suspend certain District rules during a state or federally declared State of Emergency. It should be noted that both diesel vehicles and alternative-fuel vehicles could be used during natural disasters, depending on fuel availability of either fuel. Since rule compliant vehicle acquisition is triggered upon new contracts or contract renewals, the proposed rule language gradually phases-in alternative fuel vehicles over time, and a significant portion of the in-use refuse fleet will remain diesel powered in the near term. With regard to Carl Moyer funding, eligibility for this funding is unaffected by Rule 1193.

Comment 37 The proposed rule language should be modified to require a fixed date of compliance of January 1, 2020 for those fleets provided refuse collection services under a fixed contract, fixed contracts with renewal option, or evergreen contracts.

Response 37 Staff believes that a gradual phase-in approach for the acquisition and deployment of alternative-fuel refuse vehicles is appropriate, since a vehicle acquisition requirement solely dependent upon a fixed compliance date will backload the purchase of rule compliant vehicles for nearly the entire in-use refuse vehicle fleet. In addition, an acquisition requirement solely dependent on a fixed compliance date will eliminate important emission benefits that would occur between rule adoption of the proposed amendment and January 1, 2020.

Comment 38 For trucks that work inside and outside of the District, what percentage of the trucks work in the District on a given day for the Rule to be applicable?

Response 38 Subparagraph (f)(3)(B) includes a provision that allows for TICR approval for dedicated vehicles that routinely transport solid waste in and out of the District.

Comment 39 Are verbal or written agreements between a private fleet operator and a public agency covered under the proposed rule, if the agreement can be cancelled “at will” by the public agency?

Response 39 Verbal and written agreements between and private fleet operator and a public agency that can be cancelled “at will” by the public agency within the scope of the proposed rule.

Comment 40 Are private fleets with exclusive agreements with a public agency affected by the proposed rule if the individual private fleets each have less than 15 vehicles each?

Response 40 Individual private fleets with exclusive contracts to provide refuse collection services to a public agency would be subject to Rule 1193 in accordance with the proposed rule language if the combined total of these private individual fleets in combination with refuse vehicles owned by the public agency totals 15 or more refuse vehicles.

Comment 41 If a private refuse transfer truck fleet has a contract with a private company to pick up solid waste from a privately owned transfer station that receives solid waste from either public or private solid waste collection vehicles, would this private refuse transfer truck fleet be subject to Rule 1193 in accordance with the proposed amendments?

Response 41. The private refuse transfer truck fleet would not be subject to Rule 1193 in accordance with the proposed amendments since the private refuse fleet is not contracting with a public entity.

Comment 42 If a refuse fleet that is subject to Rule 1193 hire subcontractors to transport solid waste, are these subcontractors also subject to Rule 1193?

Response 42 Subcontractors for refuse fleets that are subject to Rule 1193 must also comply with Rule 1193 requirements.

Comment 43 Would Rule 1193 apply to a private refuse fleet that is contracted with another private refuse fleet to transport solid waste from a public transfer station to a landfill?

Response 43 A private refuse fleet is not subject to Rule 1193, if that fleet is contracted with another private refuse fleet that is not under contract with a public entity to provide specified services.

Comment 44 The proposed amendments to Rule 1193 should require a multi-year phase-in, with a certain percentage of alternative-fuel vehicles added in each year over several years.

Response 45 The requirement for the elimination of 12 year old and older refuse vehicles and their replacement of rule compliant vehicles will result in emission reductions, but not to the same extent as the current proposal. The current proposal incorporates a phase-in provision with the ultimate goal of requiring 100 percent use of alternative-fuel vehicles triggered upon new or renewed contracts. This phase-in approach is designed to allow fleets a multi-year time period to allow fleets sufficient time to plan for alternative-fuel vehicle usage.

Comment 46 Private refuse fleets subject to new or renewed fixed term contract should be allowed an automatic two-year time period before being requirement to provide refuse collection services with 100% alternative-fuel vehicles, regardless of fleet size.

Response 46 The current proposed rule language contains an initial two- or three-year phase-in provision depending on fleet size for new or renewed contracts occurring prior January 1, 2012 and an additional phase-in provision for up to two years for new or renewed contracts occurring on or after January 1, 2012. As mentioned previously staff believes that these multi-year phase-in provisions are sufficient to provide both small and large fleets sufficient time to plan for alternative-fuel vehicle usage. In addition, staff believes that it is appropriate to provide some limited flexibility for small refuse fleets as part of the phase-in recognizing that these fleets may need a limited amount of additional time to plan for the use of alternative –fuel vehicles.

SUMMARY AND DRAFT FINDINGS

Summary

These findings are being made in compliance with state law requirements.

Draft Findings Required by the California Health and Safety Code

Health and Safety Code Section 40727 requires the SCAQMD to adopt written findings of necessity, authority, clarity, consistency, non-duplication and reference.

Necessity - The emission reductions associated with Proposed Amended Rule 1193 are needed for the following reasons:

- a) State and federal health-based ambient air quality standards for particulate matter and ozone are regularly and significantly violated in the South Coast Air Basin. The reduction of nitrogen dioxide emissions from diesel powered vehicles from Proposed Amended Rule 1193 is needed to meet federal and state air quality standards.
- b) By exceeding state and federal air quality standards, the health of people within the South Coast Air Basin is impaired.
- c) By exceeding state and federal air quality standards, the quality of life is reduced in the South Coast Air Basin in numerous respects.
- d) The California Clean Air Act (CH&SC Section 40910 et seq.) requires that the air districts make every effort to attain federal and state ambient air quality standards as soon as practicable. Proposed Amended Rule 1193 makes progress toward that goal.

Authority - The SCAQMD Board obtains its authority to adopt, amend, or repeal rules and regulations from Health & Safety Code Sections 40000, 40001, 40440, 40441, 40447.5, 40463, 40702, 40725 through 40728, and 40910 through 40920.

Clarity - The SCAQMD Board determines that Proposed Amended Rule 1193 is written or displayed so that its meaning can be easily understood by persons directly affected by it.

Consistency - The SCAQMD Board determines that Proposed Amended Rule 1193 is in harmony with, and not in conflict with or contradictory to, existing federal or state statutes, court decisions, or regulations.

Non-Duplication - Proposed Amended Rule 1193 does not impose the same requirements as any existing state or federal regulation and is necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD.

Reference - In adopting Proposed Amended Rule 1193, the Board references the following statutes which the SCAQMD hereby implements, interprets or makes specific: H&S Code Sections 40001 (rules to achieve ambient air quality standards), 40440(a) (rules to carry out AQMP), and 40447.5(a) (rules to require fleets of 15 or more vehicles operating substantially in the SCAQMD to purchase vehicles powered by methanol or other equivalently clean burning alternative fuel when adding or replacing vehicles), and 40919(a)(4).

APPENDIX A

RULE 1193: CLEAN ON-ROAD RESIDENTIAL AND COMMERCIAL REFUSE COLLECTION VEHICLES

(Adopted June 16, 2000)
(Amended June 7, 2002)(Amended June 6, 2003)
(PAR 1193(c) March 9, 2010)

RULE 1193. CLEAN ON-ROAD RESIDENTIAL AND COMMERCIAL REFUSE COLLECTION VEHICLES

(a) Purpose

For solid waste collection fleets operating in the South Coast Air Quality Management District (District), this rule requires public and private solid waste collection fleet operators to acquire alternative-fuel refuse collection heavy-duty vehicles when procuring or leasing these vehicles for use by or for governmental agencies in the South Coast Air Quality Management District (District) to reduce air toxic and criteria pollutant emissions.

(b) Applicability

This rule applies to government agencies ~~and private entities~~ that operate solid waste collection fleets with 15 or more solid waste collection vehicles and private fleet operators that provide solid waste collection services to governmental agencies. This rule shall not apply to:

- (1) solid waste collection vehicles where the combined total of government operated solid waste collection vehicles and private fleet operated solid waste collection vehicles providing solid waste collection services to the government agency is fewer than 15 vehicles,
- (2) ~~vehicles~~ used by a private solid waste collection fleet operator that provide services to a governmental agency not requiring a contract or franchise agreement, and
- (3) vehicles or services pursuant to ~~paragraph subdivision~~ (eg).

(c) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) ALTERNATIVE-FUEL HEAVY-DUTY VEHICLE means a heavy-duty vehicle or engine that uses compressed or liquefied natural gas, liquefied petroleum gas, methanol, electricity, fuel cells, or other advanced technologies that do not rely on diesel fuel.

- (2) APPROVED CONTROL DEVICE(s) is an exhaust control device(s) that is verified or certified by CARB to reduce particulate matter and possibly other precursor emissions. For the purposes of this rule, a new heavy-duty vehicle equipped with approved control devices means that the engine family has been certified by CARB. A pre-owned heavy-duty vehicle equipped with approved control devices means that the device has been verified or certified by CARB. To be considered fitted with an approved control device(s), all diesel exhaust from the vehicle must be vented through such a device(s) that has been fitted at the time of vehicle purchase or fitted by a certified device installer at the time the device is delivered to the operator.
- (3) BACKUP VEHICLE means a solid waste collection vehicle, rolloff vehicle, or transfer vehicle that is not an alternative-fuel, dual-fuel, or pilot ignition heavy-duty vehicle, and is driven fewer than 1,000 miles annually.
- (4) CONTRACT means an agreement between a private solid waste collection fleet operator and a governmental agency to perform residential or commercial solid waste collection services, in which the contractor's compensation for providing services, or a formula for determining compensation, is specified. Any option to renew the contract or automatic renewal that extends the contract performance period shall be considered a new contract and shall meet the requirements in subdivision (d).
- (35) DUAL-FUEL HEAVY-DUTY VEHICLE means a heavy-duty vehicle equipped with a diesel engine that uses an alternative fuel (such as compressed or liquefied natural gas, liquefied petroleum gas, methanol, or other advanced technologies) in combination with diesel fuel to enable compression ignition. A dual-fuel engine typically uses the alternative fuel to supply 85 percent of the total engine fuel requirement on a BTU basis. A dual-fuel engine must be certified by CARB to meet an applicable optional nitrogen oxide or combined nitrogen oxide plus non-methane hydrocarbons exhaust emission standard and be fitted with an approved control device that achieves a particulate matter emissions reduction level no less stringent than the particulate matter emissions reduction level achieved by the latest CARB verified or certified particulate matter control device for the applicable engine family operating entirely on diesel fuel.
- (6) EQUIPMENT BREAKDOWN means any malfunction to an alternative fuel solid waste collection vehicle subject to this rule, including a traffic accident, which causes the vehicle to operate in an unsafe or unusable manner.

- (7) FRANCHISE AGREEMENT is considered a contract as defined in paragraph (c)(4), regardless of any provision that specifies a rate structure, provided that the franchise agreement sets a limit on the number of private waste collection fleet operators that can provide waste collection services or the governmental agency limits the number of franchise agreements issued to private waste collection fleet operators.
- (8) GOVERNMENTAL AGENCY includes any state, regional, county, city, or governmental department and agency, and any special district such as, but not limited to water, air, sanitation, transit, and school districts.
- (49) HEAVY-DUTY VEHICLE means any vehicle having a gross vehicle weight of at least 14,000 pounds.
- (510) PILOT IGNITION HEAVY-DUTY VEHICLE means a heavy-duty vehicle equipped with an engine designed to operate using an alternative fuel as defined in paragraph (c)(1), except that diesel fuel is used for pilot ignition at an average ratio of no more than one part diesel fuel to ten parts total fuel on an energy equivalent basis. The engine shall not operate or idle solely on diesel fuel at any time.
- (611) ~~PUBLIC OR~~ PRIVATE SOLID WASTE COLLECTION FLEET OPERATOR is a person ~~who~~that owns, leases, or operates substantially in the District, solid waste collection, rolloff, or transfer vehicles. A person is ~~an~~a ~~federal, state, county, or city government department or agency; special district such as a sanitation or water district;~~ individual firm; limited liability company; association; partnership; or corporation or any other ~~entity~~ non-governmental agency that collects, transports, or transfers solid waste, yard waste, or recyclable materials.
- (12) PUBLIC SOLID WASTE COLLECTION FLEET OPERATOR is a governmental agency that owns, leases, or operates substantially in the District, solid waste collection, rolloff, or transfer vehicles.
- (713) ROLLOFF VEHICLE means any heavy-duty vehicle used for the express purpose of transporting waste containers such as open boxes or compactors.
- (814) SOLID WASTE means all putrescible and nonputrescible solid, and semisolid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. Solid waste

does not include hazardous waste, radioactive waste, or medical waste as defined in Section 40191(b) of the Public Resources Code.

- (915) SOLID WASTE COLLECTION VEHICLE means any heavy-duty vehicle used for the express purpose of collecting solid waste, yard waste, or recyclable materials from residential or commercial establishments. A solid waste collection vehicle is a vehicle having the capability to collect solid waste using, either manual or automated, front, side or rear loaders and generally operates on fixed routes.
- (4016) TRANSFER VEHICLE means any heavy-duty vehicle used for the express purpose of transferring solid waste. A transfer vehicle is usually a tractor/trailer combination where the trailer is loaded at a processing or transfer station.
- (417) VEHICLE means any self-propelled, motorized device that is permitted to operate on public roads through Department of Motor Vehicle registration or the federal government.

(d) Fleet Requirements

- (1) ~~Beginning July 1, 2001, for public and private solid waste collection fleet operators of 50 or more solid waste collection vehicles; and beginning July 1, 2002, for public and private solid waste collection fleet operators of 15 or more solid waste collection vehicles, or a combined total of 15 or more rolloff, transfer, or solid waste collection vehicles, Beginning (date of rule amendment),~~ all additions to an existing fleet, or formation of a new fleet, of solid waste collection vehicles shall be by purchase or lease of:
- (A) ~~alternative-fuel or pilot ignition heavy-duty vehicles, for public solid waste collection fleet operators and private solid waste collection fleet operators providing collection services subject to paragraph (d)(3) who have 15 or more solid waste collection vehicles or a combined total of 15 or more rolloff, transfer, or solid waste collection vehicles when adding or replacing solid waste collection vehicles to their vehicle fleet; or~~
- (B) ~~Prior to July 1, 2004, dual-fuel heavy-duty vehicles when adding or replacing solid waste collection vehicles.~~
- (2) ~~Beginning July 1, 2001, for public and private solid waste collection fleet operators with a combined total of 15 or more transfer or rolloff vehicles, Beginning (date of rule amendment),~~ all additions to an existing fleet, or formation of a new fleet, of transfer or rolloff vehicles shall be by purchase or lease of alternative-fuel, pilot ignition, or dual-fuel heavy-duty vehicles when

adding or replacing transfer or rolloff vehicles, for public solid waste collection fleet operators and private solid waste collection fleet operators providing collection services subject to paragraph (d)(3) who have a combined total of 15 or more transfer or rolloff vehicles.

(3) (A) Prior to January 1, 2012, any governmental agency that obtains new or renewed solid waste collection services from private fleet operator(s) shall contract for 100 percent use of alternative-fuel or pilot ignition solid waste collection vehicles, rolloff vehicles, or transfer vehicles:

(i) No later than three (3) years from the start date of the collection services for private solid waste collection fleet operators with a combined total of 50 or fewer solid waste collection vehicles, rolloff vehicles, or transfer vehicles; and

(ii) No later than two (2) years from the start date of the collection services for private solid waste collection fleet operators with a combined total of greater than 50 solid waste collection vehicles, rolloff vehicles, or transfer vehicles.

(B) Beginning January 1, 2012, any governmental agency that obtains new or renewed solid waste collection services from private fleet operator(s) shall contract for the use of alternative-fuel or pilot ignition solid waste collection vehicles, rolloff vehicles, and transfer vehicles, and private fleet operators shall be required to provide 100 percent use of these vehicles no later than January 1, 2014. If non-rule compliant vehicles need to be temporarily used due to delayed delivery of rule compliant vehicles beyond the applicable compliance date, the governmental agency or private solid waste collection fleet operator shall submit a signed and dated Technical Infeasibility Certification Request (TICR) to the Executive Officer for approval at least thirty (30) days prior to the use of noncompliant vehicles, in accordance with paragraph (f)(1).

(e) Equipment Breakdown

(1) A public or private solid waste collection fleet operator is permitted to substitute the use of a non-rule compliant backup solid waste collection, rolloff, or transfer vehicle resulting from the breakdown of a rule compliant vehicle for a period lasting no longer than fourteen (14) calendar days provided that the following requirements are satisfied:

- (A) a rule compliant solid waste collection vehicle, rolloff vehicle, or transfer vehicle is not available, and
 - (B) except for traffic accidents, the breakdown was not caused by operator error, neglect, improper operation or maintenance procedures, as determined by the Executive Officer.
 - (2) If the vehicle breakdown will last for more than fourteen (14) calendar days, the public or private solid waste collection fleet operator shall submit a signed and dated TICR to the Executive Officer for approval prior to the expiration of the fourteen (14) day period, pursuant to paragraph (f)(2).
- (f) Technical Infeasibility Certification Request
 - (1) TICRs submitted pursuant to subparagraph (d)(3)(B) shall demonstrate the unavailability of rule compliant vehicle(s) for the time period beyond January 1, 2012. This demonstration shall consist of vehicle purchase order(s), expected delivery timeframe(s), and vehicle manufacturer information that verifies delayed delivery of vehicles.
 - (2) TICRs submitted pursuant to paragraph (e)(2) shall demonstrate the length of time necessary to repair the vehicle breakdown, or if the vehicle is rendered completely inoperable, the order of a new rule-compliant vehicle or the time needed to place a rule-compliant vehicle into service, beyond the initial fourteen (14) calendar day breakdown period. At a minimum the demonstration shall identify the vehicle undergoing repair by type and VIN, vehicle repair location, specific repairs being performed, and justification for period of time necessary for repair.
 - (3) Pursuant to requirements contained in paragraphs (d)(1) or (d)(2), a TICR may be submitted to the Executive Officer to obtain approval for the purchase and use of non-rule compliant solid waste collection vehicle(s), rolloff vehicle(s), or transfer vehicle(s) where:
 - (A) no rule compliant engine and chassis configuration is available commercially or could be used, or
 - (B) dedicated vehicles are used to routinely transport solid waste in and out of the District.
 - (4) Within seven (7) calendar days of receipt of a completed TICR submitted pursuant to paragraphs (f)(1) and (f)(2), and within forty-five (45) calendar days of receipt of a completed TICR submitted pursuant to paragraph (f)(3), the Executive Officer will either approve or disapprove the TICR in writing, indicating the reasons for disapproval. The Executive Officer shall disapprove a

TICR if it does not meet the demonstration requirements of paragraphs (f)(1), (f)(2), or (f)(3). If a TICR is disapproved by the Executive Officer:

(A) The reasons for disapproval shall be given to the applicant in writing.

(B) Upon receipt of a notice of a disapproved TICR, the fleet operator shall use rule compliant vehicles pursuant to subdivision (d).

(C) The fleet operator may resubmit a TICR at any time after receiving a disapproval notification, but must still use rule compliant vehicles pursuant to subdivision (d) until such time as the Executive Officer approves a TICR.

(5) A Technical Infeasibility Certification Request is subject to plan filing and evaluation fees as described in Rule 306.

(eg) Exemptions

The provisions of this rule shall not apply to the following:

(1) No more than ten evaluation/test vehicles per fleet, provided by or operated by vehicle manufacturer for testing or evaluation, exclusively.

(2) Heavy-duty vehicles not used for the express purpose of collecting solid waste from residential or commercial establishments or transferring of solid waste from a waste transfer station to a landfill.

~~(3) Upon demonstration to the Executive Officer, any solid waste collection vehicles as required pursuant to paragraph (d) for which no alternative fuel engine and chassis configuration is available commercially or could be used.~~

~~(43)~~ Any vehicle added to or replacing a vehicle in an existing fleet after the applicable implementation date of this rule, as specified in subdivision (d), as long as the purchase contract for acquisition of such vehicle is signed before the date of adoption of this rule. This exemption does not apply to the execution of options to acquire vehicles where the option is executed after the date of adoption of this rule and where vehicle delivery does not occur until after the applicable implementation date as specified in subdivision (d).

~~(5) Persons subject to this rule who are unable to comply may apply for a variance with the SCAQMD Hearing Board. (See SCAQMD Regulation V and California Health and Safety Code Sections 42350 through 42372 for information regarding variances.)~~

~~(64)~~ Upon demonstration to the Executive Officer that all existing solid waste collection vehicles equipped with 1995 and subsequent model year diesel engines

in the fleet, have been equipped with approved control devices, a fleet operator may purchase dual-fuel or vehicles pursuant to subparagraph (d)(1)(B) until July 1, 2005.

(5) Vehicles contracted for solid waste collection services provided that the solicitation to obtain new or renewed solid waste collection services from private solid waste collection fleet operators was opened at least two (2) months prior to (date of rule amendment).

~~(f)~~ Compliance Auditing and Enforcement

(1) The fleet operator shall provide at the request of the District any files and/or records created to comply with subdivision (d) including fleet-specific information, such as a list of official DMV registrations, manufacturer, model-year, model, engine family number, fuel type, and fuel usage of each fleet vehicle. The fleet operator shall keep all required records for a minimum of two years.

(2) Any fleet operator seeking an exemption under subdivision ~~(e)~~ shall supply proof that their vehicle or fleet is exempted from this rule when requested by the District.

(3) No later than ~~July 1, 2004~~December 31, 2011, any fleet operator with 15 or more, but fewer than 50 vehicles subject to ~~paragraph-subdivision~~ (d)~~(1)~~ shall submit a letter to the Executive Officer outlining the intended source of alternative fuel to be used for compliance purposes.

(4) Any violation by a fleet operator of a contract or franchise agreement requirement for the use of alternative-fuel, pilot ignition, or dual-fuel vehicles, or the use of vehicles that are not authorized by this rule, is a violation of this rule.

~~(g)~~ Severability

If any provision of this rule is held by judicial order to be invalid, or invalid or inapplicable to any person or circumstance, such order shall not affect the validity of the remainder of this rule, or the validity or applicability of such provision to other persons or circumstances. In the event any of the exceptions to this rule is held by judicial order to be invalid, the persons or circumstances covered by the exception shall instead be required to comply with the remainder of this rule.